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AMERICAN HISTORY IN THE ELEMENTARY SCHOOLS: A NEW STANDPOINT FOR THE SELECTION OF SUBJECT-MATTER

EMILY J. RICE
Department of History, School of Education

History as a subject of study finds very little place in the elementary schools of this country below the two highest grades. In these grades it receives some attention with a view to the cultivation of patriotism — a purpose almost uniformly assigned. It is evident that parents and teachers believe that a study of American institutions will help the future citizen to fulfil his obligations to the government; that, somehow, knowledge which can find no immediate expression in action will be transmuted long afterward into good citizenship. They see no serious mission for history until the children are old enough to take an interest in political affairs.

It is only recently that the study of economics in higher institutions has placed emphasis upon the fact that political conditions are based upon industrial conditions, and that the steps of reasoning are from geography to industry, and from industry to social life and government. Social science has also shown us that good citizenship depends upon an understanding of industrial and social obligations, as well as of those of a political nature.

We are at the same time studying more carefully than ever before the experiences of the children themselves. We have learned that the logical arrangement of the subject-matter is not

necessarily the psychological order, and that the children have certain interests and powers that must be taken into account in directing their study. Psychology turns our attention to the child's experiences as an important factor in determining what he shall be taught. It is only by means of the children's own experiences that they can enter into sympathy with the experiences of the past. The teacher's place is to help them through the study of history to an appreciation of the meaning of their experience.

The child's present life furnishes the key to the phases of history that are immediately useful to him. He has different interests at different stages of his mental growth, but, in general, through the elementary-school period he is active rather than contemplative, and is therefore interested in the activities of others, in the things that are being done about him, and in occupations in which he can himself take a part. The younger children cannot appreciate the political aspects of our nation's history because they have no part to play in national affairs. Their interests, in the elementary school and even in the high school, are not primarily in government. They may occasionally be stirred by an event of unusual importance, as an election; but their chief concern is with those matters over which they have some control. Our children are not called upon to act in reference to political life. They are directly concerned in certain social and industrial conditions, and the occupations of the home and the school furnish many problems that give a basis for the study of conditions in the past. It is chiefly from social and industrial life that we must draw the problems of history that may become the child's own problems.

The tendencies of recent historical study and writing, and the insight into children's interests given us by psychology, agree in pointing the way toward the use of industrial history in our schools, and a gradual development of the knowledge of political history based upon an industrial foundation in the higher grades.

It is necessary, then, that we should change our point of view in teaching. The ordinary way of treating American history after the colonial period is by political parties. We trace the development of our history through those questions that have

divided our country into its two leading political camps. Our textbooks are filled with the details of political questions. From the industrial standpoint, we should rather follow the occupation of the country, the movement westward of the people pioneering their way across the continent and developing the resources of the land. Our history is especially that of material progress, and the true story of our nation's life must be told in terms of industrial achievement as a basis for political and social changes. Shaler says:

> It differs from all other invasions of a great land in that it was not a military occupation, but a process of settlement. Although the frontier was the seat of almost constant battle, the warlike element of the great exploit is really its most trifling feature. The true grandeur of the march consists in the fact that it was the ongoing of a civilization; the ax and the plow were the principal weapons which armed the hands of the people.

Industrial history has a special mission to perform in the teaching of American history; for hitherto the annals of our country have suffered in attractiveness by comparison with those of other lands. We have not the long and picturesque development of feudal and Renaissance times. Ours is rather the colder story of struggle under harsh conditions, and of energies consumed in the bare necessities of life. Utility instead of beauty meets us on every page. Under the impulse of industry, we are able to light up this colorless picture by glimpses of the free life of the pioneer and the art of handicraft. We are able to show the wilderness giving way to the garden with the steady march of the frontier, and to touch with as great a heroism the sturdy character of those who conquered the soil of our broad new land as has been given in the past to the invading armies of the Old World.

As an illustration of the opportunities in such a plan of work, let us outline some of the conditions in the industrial development of our country, with their effects upon our political history.

Our people entered the country by harbors and followed the inlets as far as possible. North of New York much good land has been lost to the sea, while south of it much has been reclaimed from the sea — this by the sinking and rising of the coast in recent geological times. New England lost land that would have been

valuable for agriculture, and gained harbors; for deeply sunken coasts mean good harbors. The South gained agricultural land, her wide strip of coastal plain, from fifty to one hundred and fifty miles in width — widest in South Carolina. She lost good harbors. To these causes, together with the differences in climate in the two sections, we may trace many of the differences in the historical development of the northern and southern portions of our country.

The Virginians, for instance, found a wide strip of land especially adapted to a product for which there was a great demand in Europe. They, therefore, turned almost their entire attention to agriculture. New England, on the contrary, had a narrow strip of fertile soil, and was chiefly an upland region, formed by the wearing-down of an ancient mountain range. Her people could raise no staple product for which there was a demand abroad, and, therefore, were confined to the small farm with a variety of products.

Virginia could sell her tobacco and bring back from England the manufactured articles needed, taking the tobacco directly from each plantation by means of her river systems, and returning there manufactured articles. It was unnecessary for her to develop manufactures of her own, and therefore there were in that colony very few villages and towns. In New England there was no way of securing these manufactures except by making them, and the rivers furnished excellent water-power for this purpose. It is a glaciated region, and the streams were consequently turned from their original courses, and have worn through obstructions their new channels, often producing waterfalls at unexpected places. Falls are naturally formed at the head-waters of the streams, but here they are often found near the mouths of streams. The water-power, therefore, has an abundant supply of water, and is brought near the harbors from which goods may be shipped. The development of manufactures was for this reason especially aided in New England, and there was a rapid growth of villages and towns. From the excellent harbors, commerce naturally developed. Ship-building and lumbering followed. The fishing was excellent because of the shallow continental shelf found at many points

along the coast, and the cool waters. We have, then, in New England a variety of occupations.

In Virginia, because of the plantation life, there was a great demand for labor, and consequently, the system of slavery was fastened upon that region. The labor system tended to fix distinction of classes. The scattered life made a general education difficult, and a well-educated leisure class was the result, with the remainder of the people poorly educated. This fact also helped to make class distinctions still more prominent. Scattered life contributed to the large unit of government, the county system.

In New England the occupation of the people was not such as to give a demand for slavery. The concentration of population made it easy to develop a system of general education, and there was a leveling tendency in this fact, and also in the absence of a special class of laborers. The smaller unit of government naturally developed.

In the seventeenth century the colonists had occupied the coastal plain, and in the first half of the eighteenth they filled up the Piedmont region and were looking over the mountains. They found a great hindrance to their advance in the Appalachian barrier. This mountain system held them near the coast until they had developed strength enough to cope successfully with all other powers. The French had found a region in which there was no such barrier, and had occupied a much greater extent of territory, but they were spread out thinly over it and could not hold it against their more compact neighbors.

The Appalachian mountain system extends from Newfoundland to Alabama — a distance of nearly three thousand miles. It is highest and widest in the South — about three hundred miles wide — and, covered with forests, formed a most formidable barrier. It is also wide in New England, but lower in the central portion. The rivers pay no attention to the direction of the mountains, but cross them at right angles, and it is these that form entrances to the interior. The best of them are in the low central portion. The Hudson, with its branch, the Mohawk, forms a great break through the mountains in their lowest part. The Hudson is a drowned valley for one hundred and fifty miles

of its course, or up to Albany. The falls of the Mohawk are an obstruction, and its headwaters, although leading directly westward, if followed, brought the colonists into regions occupied by vigorous Iroquois Indians, and into conflict with the French. Advance was slow in that direction. The Delaware and Susquehanna also break through the mountains, but their heads lie toward the north, and they are shallow and full of rapids. From the South Branch of the Susquehanna and from the Juniata there are water-partings of no great distance to the head-waters of the Ohio. The Potomac is also a drowned river valley for two hundred miles to the falls at Alexandria. The traders of early colonial times were taught by the Indians to go up this river to Will's Creek, where is now Cumberland, Md., and cross by a portage of only fifty-one miles' length, the shortest portage between the Atlantic and the Ohio, to the Youghiogheny, whose waters would carry them to the Monongahela, and thence to the Ohio. This was the road that Washington followed when he built Fort Necessity, and along it Braddock went to his great defeat. It became a very famous road in our history, for in early times it was the most important way to the West.

In 1716 Governor Alexander Spotswood, of Virginia, made his holiday excursion across the mountains. He had with him a party of some fifty Virginia gentlemen, with their black slaves and Indian guides. They took food and wines, and made it a genuine picnic. But Governor Spotswood had a more serious purpose in the expedition, for he wrote of the importance of the English finding the relation of the head-waters of the Virginia streams to the Ohio in order that they might occupy these regions in advance of the French. The Virginians crossed about fifty miles of forest to the Blue Ridge, and went on to the Shenandoah, which Spotswood named the Euphrates. There they buried one of their empty bottles, containing a paper stating that they claimed the country for the king of England. Although this expedition bore no fruit, the valley which they had found was soon to be settled.

Once in the valley, it was much easier to travel north and south than to continue westward, for, lying between the Blue

Ridge and the Alleghany Front, there is a long, continuous valley with low water-partings between streams that flow in opposite directions. This is called the Hudson in New York, the Kittatinny in New Jersey, the Cumberland in Pennsylvania, and the Valley of Eastern Tennessee. It was in this valley that the first settlements beyond the mountains were made.

Between the years 1730 and 1770 there was a great immigration of Scotch-Irish to this country — some half a million people, it is estimated. At the beginning of the Revolution these people made, perhaps, one-third of the population of Pennsylvania, and one-sixth that of all the colonies. They came from the north of Ireland, from that region settled in 1711 by James I, and from those people who had redeemed the land they occupied, and had established important woolen and linen manufactures. In the eighteenth century, their manufactures being interfered with by the English, who were jealous of their success, and their religious privileges being also curtailed, they began coming to this country. They landed chiefly at Philadelphia and Charleston, and showed their sturdy character by advancing at once to the frontier. They moved from Pennsylvania southward and from South Carolina northward, meeting in the Great Valley. Here, in the dense forests, they built forted villages; for the Indians had their trails all through the mountain regions, the Cherokees on the South marching through the valley to reach the Indians of the Northwest. These Indians were very hostile. In their great, square, palisaded villages, with block houses at each corner, the pioneers lived in times of danger, and from these they went out to build their cabins in the clearings which they made in the forests. They were of just the sturdy, earnest character to make a bulwark against the Indians for the weaker people of the coasts, and they were the best advance guard to creep over the mountains and occupy the western plains. Their frontier life inclined them toward democratic feeling, their occupations were more like those of the northern people than like those of the South, and their ideas considerably modified the aristocratic tendencies of Virginia. It is possible that their influence may be felt in such acts as the

overthrow in Virginia of the relation of church and state, and the laws of primogeniture and entail.

To cross the Alleghany Front and the plateaus to the west by the northern routes, the Mohawk or the Potomac even, was to come to the country of the northwestern Indians, who were very hostile and savage — the Delawares, Shawnees, and Miamis. To cross them by the southern route along the Tennessee at the southern end of the mountains was to meet the Cherokees, who were more advanced than the northwestern Indians in culture, more given to agriculture, and less warlike, but more numerous. West of the Cherokees lay the other tribes of the Southwestern Confederacy — the Chickasaws along the Mississippi, the Choctaws to the east of them, and the Creeks still farther eastward, with the Seminoles in Florida. But between these northern and southern gateways was a wind-gap, the Cumberland. This led directly to a region unclaimed by the Indians except as a hunting-ground. The Indians north of the Ohio and south of the Tennessee met here in their search for game, and often also in battle. It was a fine hunting-ground, because the animals were attracted by the good grass and the salt licks. Beyond the deep forests which lay for two hundred miles from the settlements, there were open groves with rich grass, for this was the famous "blue grass" country, the limestone region of Kentucky. Here the ground was often lowered for miles by the animals licking the salty earth. The forests had not been destroyed, as was the case in the Northwest, where the Indians burned the trees to give pasturage for the buffalo.

This was the region of least resistance, and so was first settled. In 1768 the Iroquois granted the land between the Ohio and the Tennessee to the crown. This grant, however, the other Indians would not recognize. In 1769 Boone went through the Cumberland Gap, where he followed the buffalo trails and Indian traces, and found the good hunting-grounds of which he had heard. He remained away from home two years, but was finally led to return by Indian hostility. It was not until 1774 that in Lord Dunmore's War the northwestern Indians were so humbled by the Virginians as to grant the land between the Ohio and the Kentucky to them.

Immediately Henderson, who wanted land for speculation, went among the Cherokees and induced them to sell him practically the same land for the consideration of ten thousand pounds worth of goods. The way now seemed open, and in 1775 Boone led his company of thirty men to Kentucky, blazing a path as he went, and established on the Kentucky River a forted village. Henderson followed with a party of settlers, a government was formed, and a colony started two hundred miles from the frontier. Four years later Ferguson began the settlement of Tennessee. These western settlers made their own surveys of land and protected themselves in their forted villages. Their settlements were individual undertakings. In 1778 George Rogers Clarke started from Kentucky and conquered the forts of the Illinois. Thus we were adding occupation and conquest to our other claims upon the West, at the same time that we were fighting for independence.

At the close of the Revolution the West was ours to the Mississippi and the Great Lakes — a territory greater than that of the original thirteen states. As the states had yielded individually their claims to land north of the Ohio to the general government, this was a public domain, and it was of great service in helping us to meet our debts to the revolutionary soldiers, and it also gave us a common interest. This territory being in the hands of the general government, it was organized by the government, surveys were made, officers were appointed to control it, and forts built to hold it. The conditions for settlement here were quite different from those governing previous settlers in the West, who, as groups of individuals, had been obliged to protect themselves.

Before the officers appointed by the government could reach the territory, the Ohio Association, a company of revolutionary officers from New England, had entered it. They traveled across the Hudson and on by way of the Great Valley to the Braddock Road, then down the Ohio from Pittsburg, and settled at Marietta. From this time on flat boats were constantly descending the Ohio, bringing settlers into the new country. Not until 1795, when the English gave up the forts on the lakes, was the northern route used. Cleveland was settled in 1796 by the Connecticut Land Company, which reached it by way of the Mohawk Valley.

Natural highways are of great importance to the settler, and they are no less important in trade. As soon as the westerners raised more than they needed for themselves, they sought a market. Trade seeks the nearest channels, and in the West these were the streams that flow to the Ohio and the Mississippi. Before 1783 they had established quite a lively intercourse with New Orleans, and flat boats drifted down the Ohio and the Mississippi laden with the products of their farms. Flat boats were usually used because it did not pay to make keel boats. Going downstream was easy, but upstream very difficult, and it was wiser to destroy their boats at the end of the journey than to build better ones. In spring, when the river was high, it took perhaps seven or eight days to go from Pittsburg to the falls of the Ohio, about one thousand miles, and twenty days from the falls to New Orleans. But boats were often ten weeks returning from New Orleans to the falls. The traders usually destroyed their boats at New Orleans and made their way home as best they could, often by way of Havana. Getting money for their goods at New Orleans, they would buy manufactured articles in the eastern cities and transport them over the mountains. Distance from the East developed manufactures early in the West.

Could this trade have been followed without interruption, the westerners would have felt satisfied, but after the Revolution the Spanish cut off their use of the Mississippi. Spain claimed the territory on both sides of the Mississippi to Kentucky, and would not allow the Americans the freedom of navigation of the river. This aroused much feeling, and when, in 1787, Jay was ready to make a treaty yielding the right of navigation of the Mississippi for commercial privileges, the westerners were strongly in favor of revolt. Since they looked to their parent-states in vain for relief from these and other grievances, efforts to found new states were the result, and finally intrigues with Spain and England; for England held a position on the north similar to that of Spain on the south. Until the treaties of Jay and Pinckney, in 1795, there was much friction between the two sections. In 1803 the Louisiana Purchase made a final settlement of the difficulty. The Mississippi was no obstacle to the advance of the Americans,

and their rapid expansion made control of the river basin a necessity.

In 1811 the steamboat appeared on the Ohio, and in 1815 a steamboat made its first trip from New Orleans to the falls in twenty-five days. Indeed, the demand for a method of navigation upstream on the Mississippi stimulated attempts to perfect the invention. Now the West could buy in New Orleans, and was comparatively independent of the East. This caused great consternation in Baltimore, Philadelphia, and New York. The gradual demands of foreign trade proved still further the necessity for communication between the East and the West, and its result was the Cumberland Road and the Erie Canal. When Ohio was admitted to the Union in 1803, the government allowed 5 per cent. of the sale of her public lands to be given to her, three-fifths to be used for making roads within the state, and two-fifths for those connecting with the East. Indiana, Illinois, and Missouri had the same grant. The road between Cumberland and Wheeling was selected for improvement and was finished to Wheeling, 141 miles, in 1820. It was continued through the capitals of the states — Columbus, Ohio; Indianapolis, Ind.; Vandalia, Ill. — and its crossing into Missouri at St. Louis was opposed in a long controversy by Illinois. Macadam had now done his notable work in roadmaking, and the extension from Wheeling was made according to his principles. The whole was more than eight hundred miles in extent. The war of 1812 having shown the necessity for control of an inland waterway, and the route through New York being especially favorable for trade, the Erie Canal was projected and carried to its completion in 1825.

Now New York had the advantage of the other cities of the East, and in 1826 a canal was begun from Philadelphia to Pittsburg. In 1832 the horse railroad came into use, and this route when finished was partly railroad. The same was true of the road started from Baltimore in 1827. Now began a rage for canals and internal improvements, followed by much speculation, which ended in the panic of 1837. Disastrous as was this end, the movement had done much to unite our country and develop its resources. The railroad completed the unification of the north

which had been begun by roads and canals. The glacial region was made one in industrial and political conditions as it was geographically.

Meanwhile the South was being unified by the growth of the cotton industry. Cotton had not been an important product of colonial times, but the Revolutionary War was accompanied by an industrial revolution in which cotton took the lead. The invention of the spinning-jenny and the power-loom made the beginning of the factory system. At the close of the Revolution the demand came for a supply of cotton, and America undertook to meet this demand. In 1786 "sea island cotton" was introduced from the Bahamas. It was especially long-fibered, silky, and easy to clean, and a ready market was secured for it. It was found not to grow on the uplands, so experiments were made to find a cotton that could be grown there. The upland cotton grown in colonial times was short-fibered, black-seeded, difficult to clean, and not very white. A cotton was finally obtained which was short-fibered, green-seeded, difficult to clean, but whiter; and this became the upland cotton of the South. The invention of the cotton-gin removed all difficulties, and the culture of this cotton spread across the South. The cotton belt made a division of our country at the Ohio, and caused the attempt to keep the balance of power by admission to the Union of one southern to each northern state, as Indiana in 1816, Mississippi in 1817, Illinois in 1818, Alabama in 1819, and Missouri in 1820.

The Civil War was also an industrial revolution and, since it occurred, the labor conditions of the South are growing more like those of the North. Finding coal and iron near her raw materials, the South is learning to manufacture, and the differences between the two sections are disappearing.

We have had one more barrier to cross, the Rockies, the broadest of all. Slowly the hunter and trader made their way into these mountains, and opened up the great trails across them. Discovery of gold led to a rapid settlement beyond the barrier. The political question that grew out of this advance of our frontier was: Could the Pacific slope be held to the East? As late as 1846 a South Carolina senator said in Congress that it would be

impossible for Oregon ever to be represented in Congress, as it would take ten months for one to travel from Oregon to Washington to represent it. It was the fear of losing the Pacific coast, or the threats of its people to set up a government of their own during the Civil War, that led our government to assist the building of the first railroad over the mountains. Six lines now cross them, two over practically each of the three great trails to the West. Railroads have overcome this barrier and held the Pacific to the East. They have broken down geographical barriers, made our country small, and unity possible. The great breadth of our territory rendered large engineering projects necessary, and consequently the railroad-building of America is especially celebrated. These railroads have in turn reacted upon the country to make it small and compact for political purposes.

To quote from Shaler in conclusion:

> While much must be allowed for the influence of the steamboat and the railway on the swift settlement of the Mississippi Valley, a great deal of this swiftness of movement has been due to the long education of our people in the work of subjugating a new country. This education has included a training in self-reliance which is necessary for men who are to do duty as frontiersmen. They must know the art of winning an immediate subsistence from the soil, as well as how, in the midst of other cares, to frame and consolidate their social and governmental systems. These lessons the Americans have learned in a measure which has been obtained by no other people.

NATURE-STUDIES WITH BIRDS FOR THE ELEMENTARY SCHOOL

ROBERT W. HEGNER
School of Education

[*Continued from the March number*]

III. BIRD DAY

Bird Day is the day on which the children welcome the birds that have returned from their sojourn in the South. Part of the day should be spent out of doors and part of it in the schoolroom. An excursion into the country in the afternoon, with the purpose of studying the habits of birds and of making a list of those observed, brings the children directly in touch with nature and admirably realizes the spirit of the day. Exercises should be held in the schoolroom in the morning. The walls may be decorated with portraits of noted bird-lovers, bird charts made by the children, and colored pictures of birds. A portion of the room may be reserved for an exhibit of old bird-nests and specimens of bird-houses. The program should be composed of numbers especially prepared by the children as the results of the year's work with the birds. It should not be so long as to tire the hearers. The following list of subjects will suggest the nature of the exercises:

PROGRAM FOR BIRD DAY

1. Songs about birds. (Some of these may be composed by the children and may include the call notes of different birds.)
2. Reading of Senator Hoar's petition of the birds to the Legislature of Massachusetts.
3. Résumé of bird laws of the state.
4. The history of Bird Day.
5. Essays about birds.
6. Bird proverbs.
7. Poems by the best authors.
8. Impersonations.

9. Stories about, or written by, famous bird-lovers.
10. Formation or report of the Audubon Society.
11. Song.

Many of the subjects listed above call for detailed personal observation; others will be fully discussed in a future number of the *Elementary School Teacher,* and several important ones are considered below.

1. *Petition of the birds.*— This was written by Senator Hoar and helped to pass the law in Massachusetts prohibiting the wearing of song and insectivorous birds on women's hats. It reads as follows:

To the Great and General Court of the Commonwealth of Massachusetts:

We, the songbirds of Massachusetts and their playfellows, make this our humble petition. We know more about you than you think we do. We know how good you are. We have hopped about the roofs and looked in at the windows of the houses you have built for poor and sick and hungry people, and little lame and deaf and blind children. We have built our nests in the trees and sung many a song as we flew about the gardens and parks you have made so beautiful for your children, especially your poor children, to play in. Every year we fly a great way over the country, keeping all the time where the sun is bright and warm. And we know that whenever you do anything the other people all over this great land between the seas and the Great Lakes find it out, and pretty soon will try to do the same. We know. We know.

We are Americans just the same as you are. Some of us, like you, came across the great sea. But most of the birds like us have lived here a long while; and the birds like us welcomed your fathers when they came here many, many years ago. Our fathers and mothers have always done their best to please your fathers and mothers.

Now we have a sad story to tell you. Thoughtless or bad people are trying to destroy us. They kill us because our feathers are beautiful. Even pretty and sweet girls, who, we should think, would be our best friends, kill our brothers and children so that they may wear our plumage on their hats. Sometimes people kill us for mere wantonness. Cruel boys destroy our nests and steal our eggs and our young ones. People with guns and snares lie in wait to kill us; as if the place for a bird were not in the sky, alive, but in a shop window or in a glass case. If this goes on much longer, all our songbirds will be gone. Already we are told that in some other countries that used to be full of birds they are now almost gone. Even the nightingales are being killed in Italy.

Now we humbly pray that you will stop all this and save us from this sad fate. You have already made a law that no one shall kill a harmless

songbird or destroy our nests or our eggs. Will you please make another one that no one shall wear our feathers, so that no one shall kill us to get them? We want them all ourselves. Your pretty girls are pretty enough without them. We are told that it is as easy for you to do it as for a blackbird to whistle.

If you will, we know how to pay you a hundred times over. We will teach your children to keep themselves clean and neat. We will show them how to live together in peace and love and to agree as we do in our nests. We will build pretty houses which you will like to see. We will play about your garden and flower-beds — ourselves like flowers on wings, wthout any cost to you. We will destroy the wicked insects and worms that spoil your cherries and currants and plums and apples and roses. We will give you our best songs, and make the spring more beautiful and the summer sweeter to you. Every June morning, when you go out into the field, oriole and bluebird and blackbird and bobolink will fly after you and make the day more delightful to you. And when you go home tired after sundown, vesper sparrow will tell you how grateful we are. When you sit down on your porch after dark, fifebird and hermit thrush and wood thrush will sing to you; and even whip-poor-will will cheer you up a little. We know where we are safe. In a little while all the birds will come to live in Massachusetts again, and everybody who loves music will like to make a summer home with you.

The signers are:

Brown Thrasher	Woodpecker	Chewink
Robert o' Lincoln.	Indigo Bird	Vireo
Hermit Thrush	Chickadee	Oriole
Vesper Sparrow	Kingbird	Blackbird
Robin Redbreast	Swallow	Wren
Song Sparrow	Martin	etc.

2. *The history of Bird Day.*— The first Bird Day in the schools was celebrated at Oil City, Pa., on the first Friday in May, 1894. Mr. C. A. Babcock, superintendent of schools in the above-named city, is responsible for its existence. He noticed the interest of the children in their nature-studies with birds, and suggested that a day be appointed to be celebrated as *Bird Day.* Favorable responses were received from Hon. J. Sterling Morton, John Burroughs, Olive Thorne Miller, Bradford Torrey, and other prominent ornithologists. So successful has the celebration become that it is being observed in connection with Arbor Day in many of the states. For a full account of Bird Day see *Bird Day, How to Prepare for It,* by C. A. Babcock.

3. *Essays about birds.*— A few of many possible subjects for essays about birds are considered below.

a) Aims and purposes of Bird Day. Circular No. 17 sent out by the U. S. Department of Agriculture says in part:

> Briefly stated, the object of Bird Day is to diffuse knowledge concerning our native birds and to arouse a more general interest in bird protection. As such it should appeal not only to ornithologists, sportsmen, and farmers, who have a practical interest in the preservation of birds, but also to the general public, who would soon appreciate the loss if the common songsters were exterminated.

The above circular should be consulted in preparing this essay.

b) The benefits of birds. This subject, as well as the next four, is to be taken up in detail in the *Elementary School Teacher* for May, and need not be discussed here.

c) Bird enemies.

d) How to attract birds.

e) How to protect birds.

f) Report on the decrease of birds.

g) Birds that sing on the wing.

h) The flight of birds.

i) Bird migration.

j) Bird nests.

k) How birds feed their young.

l) Stories of bird life-histories as personally observed.

4. *Bird proverbs.*

"Birds of a feather flock together."

"A bird in the bush is worth two in the hand."

> "You cannot with a scalpel find the poet's soul,
> Nor yet the wild bird's song."

"I will not kill or hunt any living creature needlessly or destroy any beautiful thing, but will strive to save and comfort all gentle life and guard and perfect all natural beauty upon the earth."— Seventh Article of Creed of St. George's Guild; RUSKIN

> "Hast thou named all the birds, without a gun?
> Loved the wood-rose, and left it on its stalk?
> . . . . . .
> O, be my friend, and teach me to be thine!"— EMERSON.

5. *Poems by the best authors.*— The birds have received their just praise from the poets, and there is hardly one who has not taken some beautiful flying creature as his theme. The following are good: "Robert of Lincoln," Bryant; "The Return of the Birds," Bryant; "To the Skylark," Wordsworth; "The Veery," Van Dyke; "The Falcon," Lowell; "Forbearance," Emerson; "The Eagle," Tennyson; "The Birds' Orchestra," Celia Thaxter; "What the Bird Said," Whittier; "Ode to a Nightingale," Keats; "The Mocking Bird," Sidney Lainer.

6. *Impersonations.*— These are real tests of the knowledge of birds possessed by the children. The pupil selects the bird he wishes to personate and, after telling all about himself, asks for his correct name. This is a sample:

"One morning bright and early I noticed several people invading my usual feeding-grounds. They carried queer shiny, yellow sticks, which they occasionally looked through. They leveled them at me in an endeavor to discover my name. I will describe myself as they saw me: I am a little larger than an English sparrow. My entire head and neck is red; my back and the front part of my wings are blue-black; my breast and part of my wings are white. This makes me appear very patriotic, as if colored with bands of red, white, and blue. I climb up the trunks of trees and catch the naughty insects that are trying to destroy them. When I find a hard, resonant stub or telephone post, I like to drum on it with my chisel-shaped bill. My eggs are laid on the chips in the bottom of a hole that I dig in a tree. They are five or six in number, and are white. What is my name?"

7. *Formation or report of the Audubon Society.*— For the past thirty years there has been a marked increase in the number of people who recognize the fact that the unlimited destruction of birds will result in disaster to the agricultural interests of the country. Strong efforts have been made to prevent the decrease of our feathered friends. Many individuals long ago worked at this problem, but organization was found necessary for the accomplishment of any lasting benefits. The first organization for this purpose was called the Audubon Society. Several para-

graphs from an editorial in *Forest and Stream,* February 11, 1886, p. 41, will best explain its object:

> In the first half of this century there lived a man who did more to teach Americans about birds of their own land than any other who ever lived. His beautiful and spirited paintings, and his charming and tender accounts of the habits of his favorites, have made him immortal, and have inspired his countrymen with an ardent love for the birds. The land which produced the painter-naturalist, John James Audubon, will not willingly see the beautiful forms he loved so well exterminated.
>
> We propose the formation of an association for the protection of wild birds and their eggs, which shall be called the Audubon Society. Its membership is to be free to everybody who is willing to lend a helping hand in forwarding the objects for which it is formed. These objects shall be to prevent, so far as possible, (1) the killing of any wild birds not used for food; (2) the destruction of nests or eggs of any wild bird; and (3) the wearing of feathers as ornaments or trimming for dress.

This editorial resulted in encouraging letters from many prominent men, among them John Burroughs, Bishop Henry C. Potter, John G. Whittier, and Henry Ward Beecher. The *Audubon Magazine* was established in January, 1887; but lasted only two years. In 1896 there was a revival of the Audubon movement, which has resulted in the formation of over thirty state Audubon Societies and countless local societies. On January 5, 1905, the National Association of Audubon Societies for the Protection of Wild Birds and Animals was incorporated for the following objects:

a) To hold meetings, lectures, and exhibitions in the interest of the protection of wild birds and animals, and to use all lawful means for their protection.

b) To publish and distribute documents and other printed matter on these or other objects, and to acquire and maintain a library.

c) To co-operate with the national and state governments, and regularly organized natural-history societies, in disseminating knowledge relative to wild birds and animals.

The aims of the corporation are:

a) To organize, foster, and strengthen state and local Audubon Societies.

b) Permanently to maintain and greatly enlarge the number of wardens now guarding colonies of breeding birds.

c) To increase, in rural districts, circulating nature-book libraries.

Individual efforts to protect birds are of value, but the greatest good is possible when many are working together. An Audubon Society in the school would organize the bird work and turn the minds of the children into the proper channels. For information as to the formation of societies write to the secretary of the state society. The addresses of the state secretaries as well as a full account of the Audubon movement will be found in *Bird-Lore* for January-February, 1905.

8. *Stories about, or written by, famous bird-lovers.*— These may be found in biographical works and in the works of the authors themselves. Some of the best-known ornithologists are: John J. Audubon, Alexander Wilson, John Burroughs, Charles Bendire, Bradford Torrey, and Olive Thorne Miller.

IV. ARBOR DAY

We find from the study of the methods of attracting birds that the planting of trees is intimately associated with the abundance of bird neighbors. Many states set aside one day each year on which to celebrate the planting of trees and the study of birds, calling it Arbor and Bird Day. It has not been thought advisable to unite the two here, but to take up each day separately, a joint program being very easily arranged from these, if necessary.

Lowell says: "I think no man does anything more visibly useful to posterity than he who plants a tree." Most people, as did Lowell, recognize the beauty and the value of trees, but they do not seem to realize that they should each contribute to the cause of arboriculture. I need not dwell upon the importance of teaching the children to protect the trees already planted and to look forward to good results in the future. When a child has taken care of a tree, has watched its advancement year after year, and has learned its method of growth, he has become a potent factor in the struggle for the salvation and future increase of our forests. Another fact makes Arbor Day an important time of

celebration: if we expect to enjoy the company of birds, we must provide trees and bushes where they can hide, build nests, and find food. In selecting trees to plant, we should have these points in mind, and thus not alone accomplish the beautifying of barren plots, but also help populate them with living, singing creatures.

Arbor Day should be celebrated with exercises similar to those held on Bird Day. There should be an outdoor and an indoor program. The exercises out of doors should consist in the planting of trees and bushes. The material for the indoor program is so accessible and various that no trouble should be experienced in arranging it. The following is given as a sample, some of the important items being taken up separately afterwards:

PROGRAM FOR ARBOR DAY

1. Songs about trees.
2. Reading of proclamation of the governor of the state.
3. History of Arbor Day.
4. Essays about trees.
5. Songs.
6. Recitations.
7. Essays about shrubs.
8. Appointment of committee to look after trees planted.
9. Song.

1. *Songs about trees.*— Many songs have been written about trees, and while learning these the children grow into the spirit of the day. Where it is possible, poems may be put to music by the children especially for the occasion.

2. *History of Arbor Day.*— Arbor Day was founded by Hon. J. Sterling Morton. Its history is comprehensively given by N. H. Egleston in a treatise on *Arbor Day: Its History and Observance,* published by the U. S. Department of Agriculture in 1896. The following letter from the founder is interesting. It appeared in *Country Life in America,* May, 1902, and is here reprinted by permission of Doubleday, Page & Co.:

LETTER FROM HON. J. STERLING MORTON, FOUNDER OF ARBOR DAY

My object in establishing Arbor Day was to concentrate the public mind on a given date upon the absolute necessity of tree-planting in all the prairies of the trans-Missouri country. On January 4, 1872, it was suggested, at the

meeting of the Nebraska State Board of Agriculture, when I offered the resolution creating this anniversary, first, that the name be changed to "Sylvan Day," instead of Arbor Day. That I opposed, upon the ground that the latter phrase covered all trees and the former only forest trees, and so the amendment was lost. In Nebraska the anniversary has accomplished much more than I dared to hope it would accomplish at its birth, thirty years ago last January. The public mind has been centered upon that day upon the importance from an economic, as well as from an æsthetic, standpoint of arboriculture. Governor R. W. Furnas, of the State Board of Agriculture, has statistics which prove that some billions of trees have been planted on that day during the last thirty years.

The celebration of this anniversary, which is the only one thus far instituted which looks entirely to the future instead of to the past, can be made more and more practical as the science of tree-planting, and its necessity, are thoroughly discussed and inculcated in the common schools of the country. Having just returned from a sojourn in old Mexico, where I have traveled during the last thirty days more than four thousand miles, I am pleased to refer you to chap. I, p. 9, of the *Conquest of Mexico,* by Prescott. There he says: "In the time of the Aztecs the tableland was thickly covered with larch, oak, cypress, and other forest trees, the extraordinary dimensions of some of which remaining to the present day show that the barrenness in later days is chargeable more on man than on nature." Agreeing perfectly with this view, Mexico is a desolate warning to the tree-destroyers of our own country and in Europe. Spain, more than any other country, shows the inexorable penalties which are visited upon a land inhabited by a people who destroy and never replant forests.

J. STERLING MORTON.

3. *Essays about trees.*

a) Celebrated trees. The Washington Elm is an example of a celebrated tree. Its history is very interesting. Holmes's poem "Under the Washington Elm" may be read in connection.

b) How to plant a tree. The chief features of the operation are as follows: Select straight, thrifty, young trees from the nursery or from open places in the forest. Dig up the plants with all the roots available. Cut off smoothly all broken or severed roots, making the cut surface slant from below, up and outward. Perhaps half of the roots have been sacrificed in digging up the tree, which makes it necessary to remove about half of the top. Make the hole wide enough to receive the roots without doubling. Place the tree in the hole in as nearly the position it had originally

as possible. Pack fine soil firmly about the roots. When the hole is almost filled with soil, shake the tree several times to settle the earth, and pour in water. Fill up the hole, and place straw or coarse manure on top to retain the moisture.

c) Best trees to plant. The kind of tree planted is important, as the ornamental, shade, bird-attractive, and other qualities must be taken into consideration. The many books on arboriculture furnish all necessary subject-matter for this essay.

d) How to improve the school-ground.

e) Trees and their relation to birds. Mr. Lange treats this subject fully in his book on *Our Native Birds: How to Protect Them and Attract Them to Our Homes.* The following trees and shrubs are selected from his list of those that provide food for birds:

(1) White cedar and red cedar.
(2) Wild haws.
(3) Wild cherry.
(4) Virginia creeper.
(5) Wild grape vine.
(6) Wild currants and gooseberries.
(7) Elder.
(8) Sumach.
(9) Gladiolus — for Humming birds.

f) Best trees to plant for ornamental purposes.

g) Commercial value of trees.

h) Influence of forests on climate.

i) How a tree grows.

j) My favorite tree.

k) The parts of a tree and their uses.

4. *Recitation.*— Space will permit mention of only a few of the selections suitable for readings: "A Forest Hymn," Bryant; "Woodman, Spare That Tree," Morris; "The Oak" and "Under the Willows," Lowell; "Nature's Book," Longfellow; "Plant Trees," Whittier; "When the Green Gits Back on the Trees," Riley; "Under the Washington Elm," Holmes.

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A DISCUSSION OF MR. FENOLLOSA'S THEORY OF ART DEVELOPMENT AND ITS RELATION TO CERTAIN PROBLEMS OF ELEMENTARY EDUCATION

LILLIAN S. CUSHMAN
School of Education

In his lecture on "The Structural Basis of Art"[1] Mr. Fenollosa presents a view of art evolution strikingly at variance with that commonly accepted. In stating his thesis he says:

> It has been held by some people in America, and I think it is held by the majority of the public, that the real root of art development and of art power lies in representation. That is the old orthodox view. . . . . All the histories of art that exist assert that it is the development of more and more perspective, more and more elements of realistic impression, that constitute the arts in our time. What I wish to say is that this is not true in the history of human art.

Enlarging upon this theory, he adds:

> The proposition I am going to make is that the real power of man over the elements of art structure comes, not from the representative element, but from the structural element; that it comes from what we do with material things in their actual human and social uses — textiles, clay, wood, stone, metal — all of these substances; and what renders their human forms agreeable to us is the application of pattern to them, if you like.

Again he states:

> What has made the finer and finer line from the realistic side of the drawing is not the realistic motive, but the desire to find finer and finer space-relations and line-relations. . . . . In other words, I would hold that the realistic development grows out of the desire for the finer and finer decorative motive.

In his slides Mr. Fenollosa drew from a range of material that included the most typical phases of art development. It is a pity that this most convincing part of his argument could not accompany the stenographic report of the lecture.

[1] See Ernest Fenollosa, "Fine Arts," *Elementary School Teacher*, September, 1904.

This theory of art evolution marks out for an educational system a line of development in control quite different from the old ones. It makes the æsthetic element a dominant factor from the beginning. It places at least a slight emphasis at once upon the elements of visual art, viz., line, dark and light, and color.

Concerning the art-growth of the individual, I should like to ask the question: How is it possible for the realistic development to grow out of a desire for the finer and finer decorative motives; and, if so, how would it modify present conditions? The graphic arts interpret to the eye through symbols of images, visually derived. Artistic development requires the continuous growth of adequate visual power. The danger is great of the child's acquiring a number of symbols which by constant repetition without growth become automatic and end in arrested development.

The world that makes itself known to us through the eye may primarily be one of color. Color, however, as an attribute of matter, is subject to limitations of form and space. Hence one may compare the world of vision to a color mosaic. Through the variations of matter some shapes are dark, some are light, some are of one hue and others of another. By correctly defining color limits one also defines form and space. A receding road appears as a wedge-shaped area related in certain definite ways to other shapes. The distant objects of a landscape appear as color shapes, less intense than near details, but still as clearly defined areas. The third dimension is everywhere evident through the variations of light and dark shapes, and through the spaces into which it is cutting surrounding areas. To interpret in terms of the visual, things must be perceived as if one were looking through a window or at a mirror on which the subject is projected. Children often see color and yet render it as a formless mass. We all know the child who covers his paper with a smudge of red paint and calls it an apple. It is only after he has reinforced the notion of its color by his sense of the feeling of the apple that he can completely define his image. It would seem, therefore, that to be a perfect visualist would be to possess perfect co-ordination of visual and motor sense. I apply the term "visualist" to people from whom seeing stimulates a response in

terms of color shapes. I have found about one child out of thirty to react in this way. Seeing with the others is so imperfect that it serves merely to present to the mind a symbol of a motor experience. These motor images seem to get in the way of a direct visual impression. We know from such experience that a road is miles in length, and that it is on a flat plane. We know that the table has thickness. It is impossible for the majority of people to forget these facts, or to relate them properly to others, and to see these things as projections.

I have tried to indicate that if there is to be continuous growth through art-expression, the child must become more and more conscious of these visual facts. Attention must in some way be directed to variations of tone, to variations of size, and to variations of shape. Here is the weak point in past methods, both pedagogic and unpedagogic. Between the years of six and twelve the increase in the power of seeing is not usually proportionate to the development along other lines. When the art element has been omitted, one of two interests has usually been depended upon: either the interest in things and their correct representation, or the interest in idea and its expression. Is the weakness due to this fact? Very imperfect and conventional symbols serve to call up associated ideas. Measured by a standard which makes expression of ideas the only aim, the child's crudest effort is adequate. A line at the top of the paper for sky, and one at the bottom for ground, express perfectly his notion of the distance between earth and sky. The desire to express idea alone does not afford the key to legitimate interest in space-art.

In Fig. 1 of the iris I have attempted to indicate by dotted lines a few of the many comparisons which would be made by the draftsman in the process of making an accurate drawing from the plant, when attention is focused entirely upon the problem of representation. First, the form of the group as a whole is noted, as if inclosed in Fig. *A, B, C,D, E*. The proportion of height and width of the group is determined by comparison of *CF* and *DG*. The position of *E* is determined by its vertical relation to *AC*, as at *K*. The whole is next broken up into its most important subordinate parts. The shape of the flower is defined as *CDNLM*.

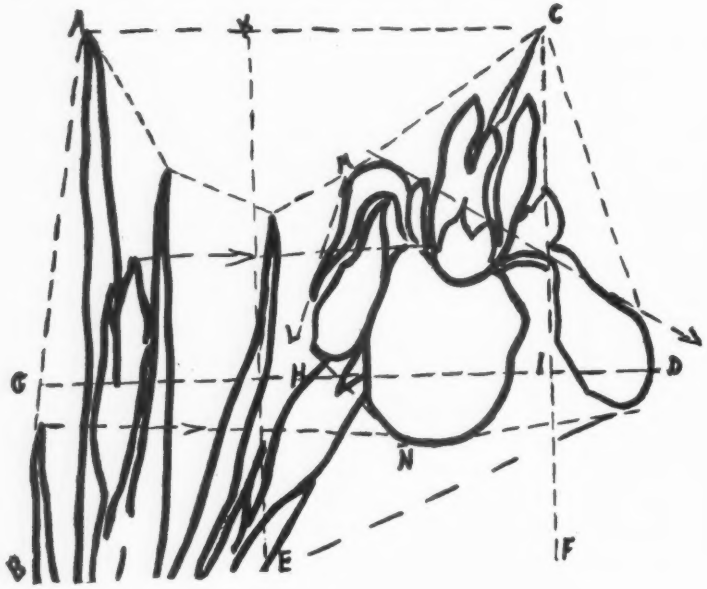


FIG. 1

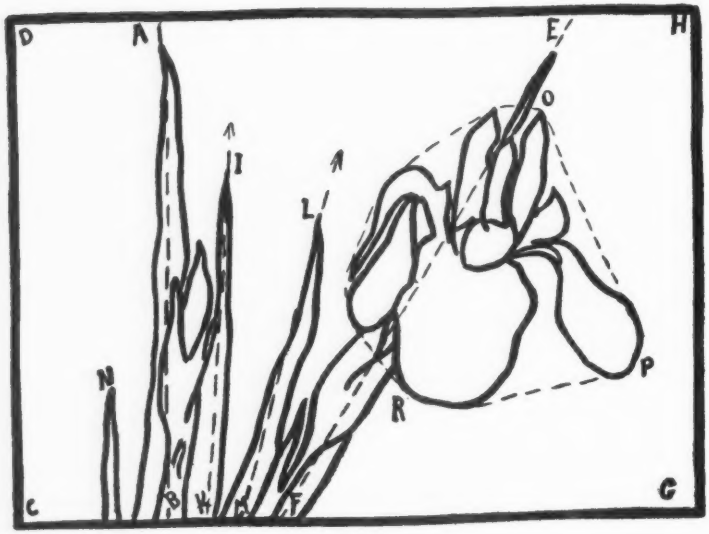


FIG. 2

The width of the flower *DH* is compared to the length of the line *CF*. This process of relating one set of details to another by noting common direction and relative proportions is followed till the minutest parts are accurately placed. This process is deductive, and is fitted only to a mature mind. It is a power not gained, without great loss of energy, much before the fifteenth year. It is the method by which the average art student sits down with plumb-line and spends weeks in laborious analysis of the immovable cast. It is the method which belongs pre-eminently to a period of conscious study and analysis. It is neither the process by which the child interprets naïvely his imperfect impressions, nor is it the method by which the artist who has mastered his processes, till they have once more become unconscious or instinctive, interprets the ever-changing phenomena of living things. Owing to the inability of the young mind to make the close analysis of form which is indicated in the illustration, when we concentrate the attention upon things and their representation, we are holding up a standard which is beyond the child's mental powers. Moreover, it is a question whether, if it were not so, in the desire to reproduce an object merely, there would in early years arise a motive strong enough to make him try to master so much drudgery. While they are not capable of close analysis, children of ten are conscious of result as result. Measured by a standard which makes representation the highest aim, their efforts must seem inadequate. Hence artistic activities end too often in dissatisfaction and disgust at a period when they would be most beneficial as emotional safety-valves. One naturally questions whether it be possible that there would normally occur a chasm so wide that development would practically be suspended. In the Laboratory school we found that this break did not occur in the crafts. In the case of the textiles which were most thoroughly organized and developed, the interest in the decorative side of the work grew constantly. At about twelve years this interest finally emerged from the central activity to the extent of abstract exercises in design. In these exercises the children formulated their experiences in the decoration of specific articles, and realized these experiences as illustrations of large principles of composition and

design. Observation of this and other evidences of æsthetic interest led to the belief that the delight in producing arrangements of form and colors finally took the place of the earlier story-interest. The study of naturalistic symbols in the later period hinged on the desire to organize them into a whole which should be beautiful. While we instinctively responded to this need through the close observance of the children, its real significance was not fully appreciated till viewed in the light of this theory of art evolution.

How can the attention be legitimately carried through the representation of things to the representation of spaces? Mr. Fenollosa answers: Through the desire to find finer and finer space-relations. In Fig. 2 I have indicated, as far as possible, the process of drawing the iris from this point of view. First the attention is directed to the rectangle *CDHG*. What are the characteristic lines of the iris? How can the rectangle be cut by these so as to procure a beautiful division of spaces, and a unified result? *AB* and *EF* become leading lines, interpreting the plant characteristic and placed so as to divide the rectangle into three finely proportioned areas—*ABCD, ABEF,* and *EFHG*. We next consider the enrichmnet of the three areas. The eye is carried over the smallest space *ABCD,* which is related to the others by the one small leaf-shaped *N*. The central space *ABEF* is enriched by two leaf-shapes cutting it into three background spaces very harmoniously related to the leaf and petal forms. The space *EFHG* is united to the rest of the rectangle by the extension of the flower into the triangular space *OPR,* which cuts *EFHG* into three very nearly equal areas. I would call attention to the fact that in the effort to gain rhythm and balance, laws of order and beauty, the mind has been called to consider background spaces. Now, if the reader will attempt to focus his eye on spaces *ABCD, ABEF,* and *EFGH,* he will find that it is easy to retain an image of these, and by so doing he could draw the leaf *A* and stem *EF*. By noting the background spaces into which leaves *A, I,* and *L* divide the middle area, he will soon be able to image more in detail this space, and could place correctly these leaves. In the same way, by noting the relations of the

three figures *ORP, FRPG,* and *POEH,* he could locate the flower. In other words, out of the art-interest has developed this power of seeing.

Children do not draw by continual reference to the subject. They draw from the image. The image is of some kind of a whole, or of a symbol which stands for the whole. The only process by which they can break up a whole into its parts, and render the parts in their correct interrelations, is by seeing the parts as lesser wholes. Hence I ask: Would the interest in objects as elements in the problem of space decoration develop a more complete power of imagery?

The work of Arthur W. Dow is familiar to everyone. He was the first to adapt art education to the theory of evolution advanced by Mr. Fenollosa. Those who see in it only an attempt to teach composition naturally wonder at its being regarded as a new point of view. If there were anything new in the laws of graphic composition, they would not be the universal laws which they are — laws as old in their manifestations as the human race. The newness lies in the attempt to develop realism out of the process of obtaining structural beauty. In the case of adults Mr. Dow has pretty clearly proved that it can be done.

Fig. 3 reproduces a set of designs made by a student in the College. These were the working out of purely æsthetic problems.

In Fig. 4 the lower left-hand drawing of landscape was the first attempt of the same student to sketch from nature.

Fig. 5 is a set of studies in composition. The original drawing from the subject is seen in the upper right-hand corner. The others are variations of the original, made for the purpose of abstracting line and dark and light as elements of space-art. These were the student's introduction to the subject of free-hand drawing. The remaining studies in Fig. 6 are the same student's first attempts at rendering nature. In all of these, the consciousness of background shapes, gained by the design and composition, aided them in seeing more readily.

I would have no one think that such abstractions as these should be presented to children. We must in no way interfere with their spontaneous impulses.

In all questions relating to organizations of art-work in elementary education, let us accept as a settled fact that no motive artificially imposed upon the child will result in real art expression. We may conclude that the child is stimulated to such expression by practically as strong elemental impulses as the race, viz., the story-telling, or, as Mr. Fenollosa calls it, the literary motive and the decorative.[2]

I have not intended to cast any doubt upon either of these motives as an initial stimulus. My question is wholly concerning the kind of control which it is possible to develop out of the satisfaction of these impulses. If we can assure ourselves that children naturally respond to æsthetic impulses, then we may feel safe in undertaking their development by gradually placing emphasis upon the art elements, and by so doing gain the visual power essential to continuous expression.

It has been clearly indicated that a sense of orderliness in the use of symbols constitutes the art side of the work. Do children show this? Here is a wide field for careful experimentation.

Fig. 6 represents a set of portfolios which children five and a half years old made to hold a set of nature records. To furnish some unifying element for the design, the children were limited to units symbolizing nature. Leaves were given them to arrange in any way they liked. They combined these leaves or used them singly. A pattern which they drew and cut from the natural leaves enabled them more freely to express their natural sense of order or disorder, as the case might be. Through difficulty in controlling their medium, the units in process of repetition lost their original form. No. 1 it will be seen, is a balanced composition. No. 2 was intersting in its development. The circle of leaves was the child's first idea. He colored these green. Not quite satisfied, he put a spot of red in the middle, and then seemed to feel the need of balancing that, and added the large circle of red paint around the outside of the leaves. In No. 3 the boy has put his name. He started it too far over, and rather than

[2] See the discussion of this in "Principles of Education as Applied to Art," *Elementary School Record*, February, 1900; "Elementary Art Teaching in the Laboratory School," *Elementary School Teacher*, June and September, 1903; and "Æsthetic Development the Problem of the Future," *ibid.*, March, 1904.

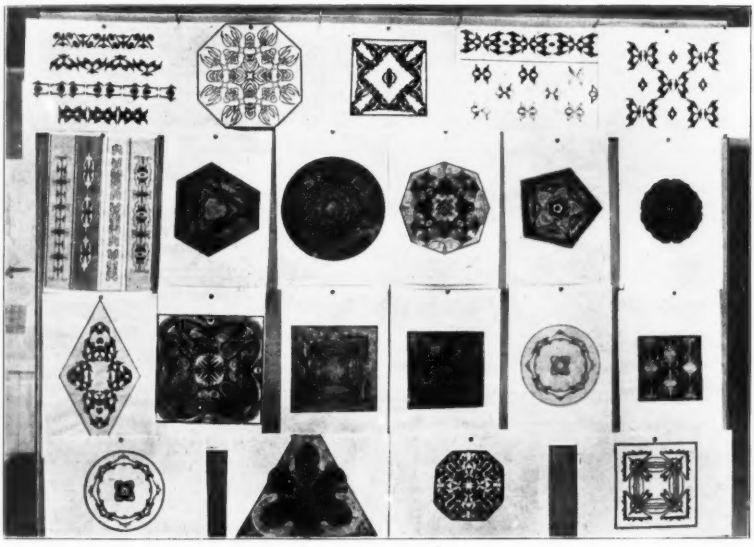


FIG. 3

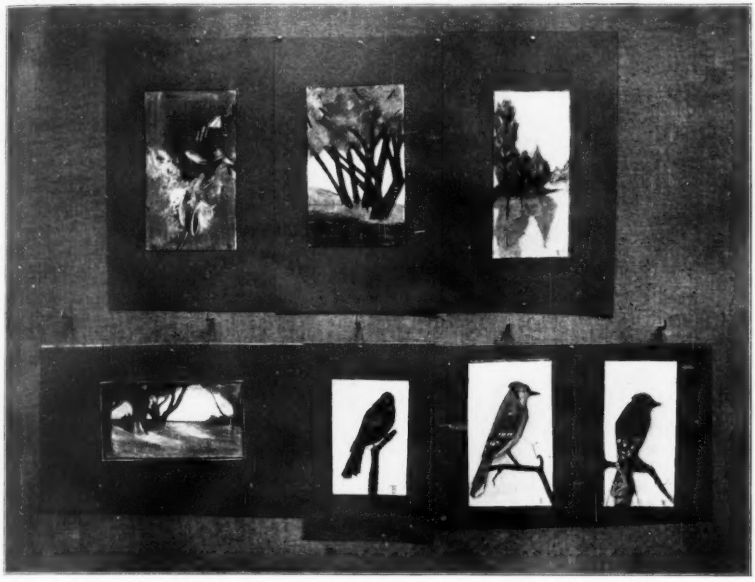
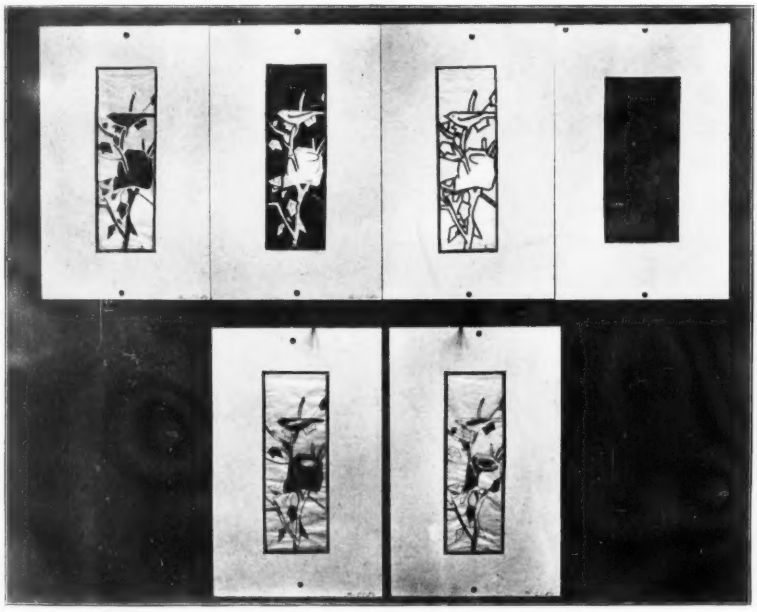


FIG. 4



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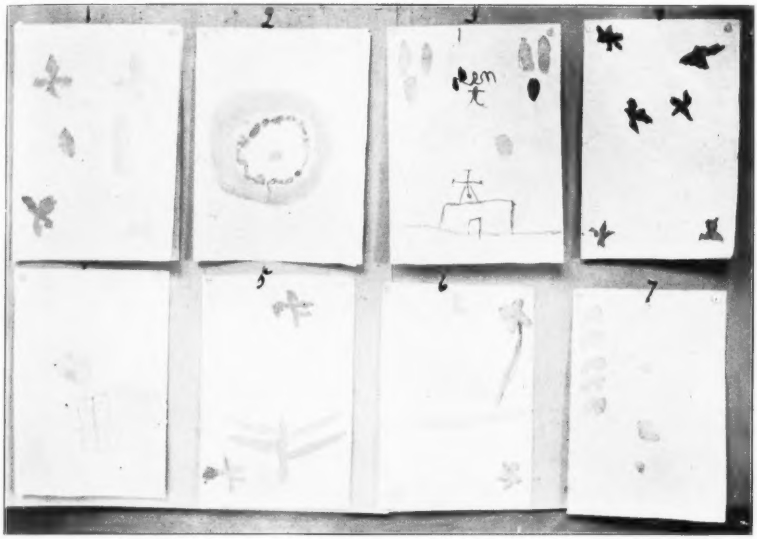

FIG. 6

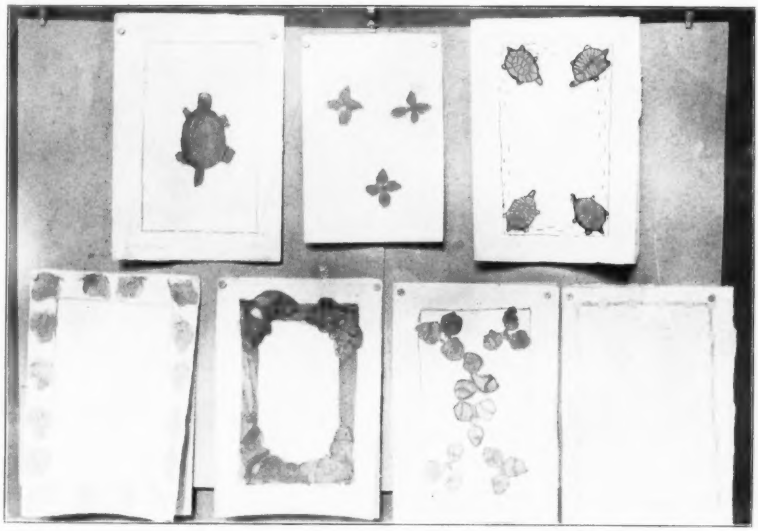

FIG. 7

make it one-sided he has placed the *T* below the letters *Den.* The lower part of the drawing he called a weather-vane. The balance of the spacing is very interesting to me. Nos. 6 and 7 are either entirely lacking in these elements, or the children failed tc carry out their original plans. No. 5 shows the flightiness of a young child's purposes. The tree on this cover was the reaction from the brush and a cake of bright color. He did not carry one set of interests through the half-hour period. Fig. 7 was the work of six-year-old children developed in the same way. Acorns, leaves, and a pet turtle figure in these designs.

Of course, I would not attempt to prove anything from such a limited number of examples, but only to indicate the direction in which investigation will do valuable service.

We would do a great injustice to our heritage from the workers in fields of so-called new education if we allowed ourselves to place undue emphasis upon the technical process. There is danger of our beginning to force upon children a lot of formal exercises in the name of æsthetic development. These may be just as isolated and foreign to his own real needs and experiences as were the type-blocks of twenty years ago. Let us question, therefore, the real interests out of which it may be possible legitimately to develop this control. The crafts seem to me to furnish one splendid initiative. They relate themselves normally to the child's life, and they furnish the very basis out of which, according to Mr. Fenollosa, the race has developed its art. In the development of decoration the attention is almost immediately fixed upon all of the spaces in any area to be decorated. If the problem is weaving stripes into a rug, it is not a question of stripes alone, but of the spaces into which the stripes are dividing the rug. The mind soon acquires the habit of noticing how particular things are cutting a certain space. When this habit is acquired, the individual, as we have seen, is a long way on in the development of real visual power.

A discussion of the development of adequate control through free pictorial expression opens up such large and fundamental educational questions that I prefer to reserve the subject, as a conclusion of this discussion, for another number of the magazine.

HAS THE DIVIDING LINE BETWEEN ELEMENTARY AND SECONDARY EDUCATION BEEN DRAWN AT THE PROPER POINT?

W. C. RUEDIGER
Montana State Normal College, Dillon, Mont.

The question before us has been attracting the attention of the educational world for some time. A few years ago the leading educators and educational papers began the discussion of shortening the college curriculum. It was pointed out that we have been piling on to our educational requirements until it was beginning to take nearly half a lifetime for a professional man to begin his career. The same wave has now reached the elementary school. If we want to get our young men started in life at the proper age, we must save time all along the line, and the elementary school must come in for its share of curtailment as well as the college. Accordingly, we have had proposals of doing the work now alloted to the eight years of our elementary school in seven years and even six years. Superintendent Greenwood, of Kansas City, declares that we can do in seven years all we are now doing in eight, and actually do it better, for they have been doing it at Kansas City ever since 1867. If now we should make some apparently needful omissions, suggested by Soldan, McMurry, and others, we ought to be able to save at least one year more and complete the elementary work in six years.

But to the recommendations of Mr. Greenwood, Superintendent Sabin and the superintendents of some of our New England cities object most decidedly. These men maintain that the time now at our disposal is too short, if anything, and that the nine years generally devoted to the grades in Massachusetts are none too many. The whole matter is in a state of chaos, and one cannot help feeling that many now taking part in the discussion are not aware of the real point at issue. The source of disturbance lies deeper than the shortening of the curriculum. The latter is but

the secondary aspect of a more fundamental problem. The matter that is at the basis of all the trouble is the lack of proper articulation in our entire school system. Educationally we have reached a stage where radical readjustment has become necessary. Our grades and our high schools and our colleges have no distinct provinces of their own. The grades from below, and the colleges from above, protrude into the secondary field, and all three aspire to be finishing schools, to which facts, more than to any other, our loss of time is due. The cause of these defects is not far to seek, but for want of space we can only hint at them here. They have come about from the historical fact that the three fundamental parts of our educational system have had independent and unrelated beginnings. Briefly stated, the New England grammar school, which has given rise to our elementary school on one side and to our high school on the other, was a college preparatory school and prepared for such schools as Harvard and Yale. But as all people did not wish to send their children to college, the high school was created as a sort of a people's college. This high school, however, was soon made subservient to the college, and it, rather than the grammar school, came to be looked upon as the preparatory school. The whole system, however, is devoid of plan, and it is this lack that is causing our present disturbance. The fields of our primary school, secondary school, and college are all three improperly defined. Readjustment is now pressing itself upon our attention, but in this we are progressing slowly, due to the momentum of existing conditions and human conservatism. Men always feel that what has been tried and has been giving us passable results, is preferable to the untried, no matter how much better the latter may appear upon the surface.

The readjustment toward which we are tending seems to be unmistakably the following: The dividing line between elementary and secondary education will be placed at the end of what now corresponds to our sixth grade; the secondary school will embrace the time between the ages of twelve and eighteen or nineteen; the old-time college will disappear from the scene; and our educational system will be culminated by a university with

specific ideals. How near we already are to this arrangement will be pointed out later.

The reasons for this trend of reorganization are twofold. The first of these we may call the sociological; and the second, for the want of a better name, the genetic.

Viewed from the social standpoint, education is a process of adjustment. Man is a human being, not because of his physical equipment, nor because of his mental endowment, but because of his social environment and inheritance. Since man has reached the human stage in the process of evolution, he has created for himself a mental-historical environment which more than anything else distinguishes him from the brutes. To put man in the possession of this environment is the function of the so-called liberal education. Every generation is the trustee of the civilization of the succeeding generation, and the content of this civilization consists in the mental and spiritual conquests of the race.

The parts of man's mental-historical environment, which it is the function of education to impart, have been variously classified. W. T. Harris speaks of the five windows of the soul from which education should draw the curtain. These windows, as he gives them in *The Psychologic Foundations of Education,* are: "(1) mathematics, time, space, and mechanical relations; (2) organic nature, geography; (3) literature and art, human nature as feelings, convictions, aspirations; (4) grammar, logic, philosophy, the intellectual structure: (5) history, the doings of the greater social self as reaction."[1]

A better classification is that given by Nicholas Murray Butler in his classic essay, *The Meaning of Education.* He too makes the classification fivefold, and it is as follows: "The child is entitled (1) to his scientific inheritance, (2) to his literary inheritance, (3) to his æsthetic inheritance, (4) to his institutional inheritance, and (5) to his religious inheritance."[2] To be educated consists in being adjusted to the social possessions indicated by these five heads. No one, indeed, can be said to be truly human who is not in sympathy with, and who has not at least an outline knowledge of, the lines of achievement just mentioned.

[1] Table of Contents, p. xxxi. [2] P. 17.

They form the environment which alone is entitled to the term "human," and Nature herself has evolved the prolonged period of immaturity, so peculiar to man, that he may be adapted to, and be put in possession of, this environment. It is this fact that will never allow the true teacher, wherever found, to have his horizon filled with that which is merely utilitarian. The full stature of humanity, without in the least disparaging the narrowly useful, includes much that does not contribute directly to physical needs.

Having now before us this slight indication of the end that education in the broader sense should accomplish, we are ready to see what the main features of an educational system should be to reach this end. We may designate this field the field of general adjustment to environment. The time required may well be from six to eight years, and it logically falls to the secondary school. It is in this school that the so-called liberal and academic studies should be pursued. The field it embraces is organically one, but we do not now have any one school which covers it. In Germany and France the schools known as the *Gymnasium* and *lycée* in a measure fill this span, but with us it is broken up into fragments, entailing perhaps the loss of two years of time, and, what is worse, an effect upon the learner that lacks the most essential quality of unity. It wastes mind, as President Butler says.

A part of the work belonging to this field is now being done in the upper grades, another part in the high school, and still another in the first years of college. The natural lines of cleavage, however, from whatsoever standpoint we may view it, do not fall where we now have them. Considering both subject-matter and method, they fall at the end of the sixth grade of the elementary school, and at the end of the sophomore year in college. The span included between these points is the period that puts man in possession of the general social possessions of the race, and should be covered by our secondary school.

But what, then, is the distinctive function of the elementary school? It is this: The aim of the elementary school should be to put the learner in possession of the working tools of knowledge, the tools by means of which he may delve out and possess the

treasures of the succeeding stage. Before a person can gain possession of the field of culture, he must know how to read and to write, to spell and to figure; he must know some of the elementary facts of composition, and some facts of grammar; he must have a general knowledge of the facts of geography and history, and of many of the facts of science now embraced in nature-study; he must have pursued an inductive, grammarless study of a foreign language; and last, but not least, he must have had courses in singing, drawing, and industrial work or manual training. All these are tools which he must continually use in gaining later a unified conception of human experience; and they should be imparted in the elementary school.

The distinctive methods to be used in the elementary school, as well as in the succeeding stage, are indicated by the stages of the child's development. We have in the past been in the habit of looking upon the child as differing from the adult only in being smaller. Growth was regarded as a matter of avoirdupois increment. But this is far from the truth. Mental growth consists primarily in the increase and addition of function. The child of ten is to a large extent a different being from the youth of fifteen. Before the period of adolescence, the characteristic adult emotions and intellectual processes are present only in embryo. Between the ages of six and twelve, roughly speaking, the child may be designated as being in the deeper sense unsocial, unmoral, and unreligious. On his intellectual side he possesses little power of consecutive reasoning, is objective and factual in his thoughts, and craves variety. It is the time for drill, habituation, and mechanism. The period corresponds on the genetic side exactly to the requirements of the sociological needs. It is the time, again, for putting the learner in possession of the tools of knowledge.

But, beginning at about the age of twelve, a great mental transformation sets in. The more profound social, moral, and religious emotions begin to function, which in a short time, but usually with much mental and physical disturbance, transform the child into the adult. On the intellectual side, the most noteworthy change is the quickening of the reasoning power. The capacity

for consecutive thought is now entered upon. Real causes and effects are looked for as never before, and the childish "why," which almost any explanation would satisfy, ceases to exist. In short, adolescence inaugurates the time for the organization of experience on a logical and scientific basis. On the emotional side, it begins the time for literary and æsthetic appreciation.

The point of especial interest to us again is the fact that this period corresponds psychologically to the period of general adjustment. The youth begins to feel himself a member of the race, and is inherently fitted to assimilate the factors which comprise humanity's peculiar environment.

Both lines of investigation point to the conclusion that the dividing line between elementary and secondary education should be drawn about two years earlier than is actually the case. The stages of an educational system so divided would have definite functions to perform, and would thereby be supplied with the greatest motive for efficiency — a definite goal to be achieved. The benefits would accrue to both the grades and the high school, but especially to the latter. This institution has now neither a logical beginning nor a logical ending. It embraces an amorphous section of our educational system, and is thus left without the stimulus of an exclusive ideal. Efficient though our high schools are, their best friends are fully aware that they ought to be far more efficient. But the marvel is not that they do not yield the results we should like to expect, but that they yield as much as they do. The institution is minus both head and feet, these necessary parts being embraced by the first years of college and the upper grades. Without them, figuratively speaking, it can neither conceive of a specific, unified ideal, nor make progress in its efforts toward such an ideal.

A discussion of the nature of the coming college or university — meaning by the term "university" a collection of colleges — is not pertinent to the topic in hand, but for the sake of logical completeness we must give it passing notice. For those who can read the signs of the times, the nature and function of this institution have in the last few years become distinctively evident. The university is fast becoming the training school for the professions

and vocations of life. This it is doing, of course, on broad scientific and technical lines. The reason that this fact is not evident to many is because the fields of the scholar and scientist are not included in their minds among the vocations of life. But the training for research, in whatever line it may be, is as much a training for life as the training for medicine, engineering, or law.

The number of years to be devoted to the college or university is quite undetermined. It may be from four to six, and time may show that it is best to divide these years into two groups. These groups would be distinguished by the character of the work done. In the first group this might be called professional preparatory study, and in the second, professional study.

The proximation we have already attained to an educational system, as above outlined, is probably closer than many of us realize. There is now an obvious line of cleavage between the sophomore and junior years of our leading colleges and universities. The methods of instruction are distinctly different above and below this line, and after the sophomore year electives are permitted which count toward the professional, as well as toward the academic, degrees.

In some places, moreover, the line of cleavage at this point has come to an actual split. The first two years of college, which are distinctly of the secondary-school type, are being included in the high schools. Where this is done, I understand, the plan is growing in favor.[8]

The line of demarkation between the intermediate and grammar grades is also quite distinct. The difference is again one that embraces both the method of instruction and the subject-matter. The method dominated by repetition, drill, mechanization, and concrete imagery in the former gives way to the tracing of causal relations and the application of principles in the latter. The intermediate teacher uses interesting material to implant concepts and establish habits of action, while the grammar-grade teacher places the emphasis upon the interpretation of interesting material by means of concepts and principles. This is exactly the point of view of the secondary school. The subjects studied in the upper

[8] See *Elementary School Teacher*, December, 1904, p. 251.

grades are approached from the adult point of view. Arithmetic, grammar, history, and geography are here thoroughly organized, just as these and other subjects are in the high school. Furthermore, the field of electives is in many places extended to the upper grades, as is also departmental teaching, which is but a phase of specialization on the part of the teaching force, characteristic of secondary and higher education.

As yet only a few cities have gone to the extent of incorporating the upper grades into the high school, but where it has been done it is meeting with eminent satisfaction. At Three Rivers, Mich., where this plan has been in force for two years, Superintendent McElroy, as well as the patrons, are growing more and more enthusiastic in its favor. In a personal letter, the specific points of advantage mentioned by Mr. McElroy are the following:

1. It places pupils on their own responsibility earlier, and makes them independent of the teacher at an earlier age as a result.

2. It gives the pupils the advantage of training by teachers especially prepared for the work being done.

3. It keeps the pressure at a high degree all the time. This may be an objection, but I have found that it has done no damage, because teachers have been reasonable in their demands.

The following extracts come from a personal letter written by Professor A. S. Whitney, now of the University of Michigan. Professor Whitney was for some years superintendent of the school at Saginaw, Mich. He says:

While superintendent of schools at Saginaw, seven years ago, I incorporated the seventh and eighth grades into the high school. . . . . I think it is not too much to say that the results have more than fulfilled our expectations. Those so desiring can take the old-line studies together with the new, while those intending to enter college from the beginning can accomplish enough to place them practically in the sophomore year in our best universities. In other words, they save just one year.

So much for the practical side. As for the theoretical side, the argument, to my mind, is entirely on the side of the six-year elementary and six-year high school. . . . . Our eight-year and four-year segregation is purely American, a result of sociological forces which have long since passed away. Psychologically it has never been defensible, as I view it.

The destruction of this old eight- and four-year fetich, and the substitution of the six-year elementary and six-year high school in its place, with

the proper connections, is, in my opinion, the most important educational reform now before us.

It seems conclusive that wherever this readjustment of the curriculum on the rational basis has been tested, the results have sustained the most sanguine expectations. This is especially true when we remember that the readjusting process has as yet been carried out only in part at any one place. And what has been done in the places referred to is little more than transference of work from one school to another. The internal reorganization of the work, which is the corner-stone of the new order of things, has scarcely begun. To meet the ends for which each stage of our school system should stand, much redistribution and rearrangement of work are obviously necessary. There is now a great deal of needless repetition, and some studies are pursued before the students are ready for them. This results primarily from the fact that each school now in a sense tries to be a finishing school. There must be rounded courses of history, literature, geography, arithmetic, grammar, and physiology in the last two years of the grades, because many pupils are supposed to graduate from the eighth grade into the immediate vocations of life. The same also holds for the high school, but in a greater degree. The student who goes to college is rather the exception than the rule. The high school must therefore be a finishing school. But the field that naturally falls to the high school cannot be adequately covered in four years. Hence conditions of hurry and superficiality result here.

The gain resulting from the new order of arrangement would be chiefly in the quality of the work done. But there is also reason to hope that about two years of time would be saved. The eight years now devoted to secondary training in three different schools could probably be reduced to six. This time would be saved, not by omissions, but by the elimination of needless repetitions and a more efficient arrangement of studies.

Another gain to society would accrue from the larger number of students that would avail themselves of the opportunities of the school. Each school being now a finishing school, the encouragements for dropping out are too great. Under a properly

articulated school system there would be reasons for continuing that are now largely obscured. Statistics also, so far as our present limited opportunities furnish them, seem to bear us out here. Wherever shortened courses for the grades have been tried, the high-school attendance seems to have been thereby materially increased. Superintendent Greenwood is fully convinced on this point.[4] He attributes the phenomenal high-school enrolment of Kansas City in large part to the seven-year course in the grades. The effect of this factor on the Kansas City schools has, indeed, been denied by Mr. Sabin,[5] but it is not at all clear that his denial is sustained by the facts.

Another distinct gain would come from the matter of discipline, particularly in so far as the playground is concerned. Seventh- and eighth-grade pupils must be dealt with differently from intermediate and primary children, but when they are all together this becomes a difficult problem. For want of sufficient room in the public school at Dillon, we were obliged last year to remove the eighth grade to the normal building. The salutary effect of this separation, both on the grades left behind and on the eighth grade, was scarcely short of remarkable. The spirit of our entire school was changed for the better.

Now as for objections to the new arrangement. If we grant the points of advantage just mentioned, it becomes difficult, indeed, to find any. It is maintained that the administration of the proposed régime would be more expensive than the present, because high-school instruction is more expensive than grade instruction. For the sake of argument, let us grant this point. We must bear in mind, however, that we should count the total cost, and not only the cost at any one particular point. Now, when we remember that the secondary period would be reduced by about two years, it would rather appear that the total cost may even be lessened. But in a matter like this we should not expect increased efficiency for nothing.

In conclusion, it may be said that the American nation is ready to take a long stride ahead in educational organization and reform.

[4] See National Educational Association *Report*, 1903, pp. 247 ff.

[5] See *Education*, October, 1903, pp. 108 ff.

We owe it to the cause of civilization. Other nations look to us for ideals in governmental administration and commercial and industrial enterprises, but they can find little to copy from our inarticulated school system. Being less hampered by ancient traditions than European nations, this is not as it should be. America may justly be expected to take the lead in educational matters.

In the coming American school system there will, indeed, be distinction, but there will be no organic separation. The whole system will be in the form of a regular and continuous curve, having one part vitally connected with another. It will begin in a concrete and fundamental way in the elementary school, pass up into the realm of culture in the secondary school, and down again in the university to the specific vocations of life. It will provide in the most efficient manner for the two fundamental requirements of life. The individual who will have availed himself of its opportunities will be in position both to make a living and to find life worth living.

ROBERT, CAVALIER DE LA SALLE, ET JOLIET AU CHATEAU ST. LOUIS[1]

LORLEY ADA ASHLEMAN
School of Education

These two plays furnish reading-lessons for the sixth and seventh grades, now studying French colonization in America. The children of both grades will represent *Robert, Cavalier de La Salle* to the French classes of the School of Education, and the seventh grade will represent *Joliet au Château St. Louis.*

The plays present bits of history that are as much American as French. Faint and far away as that Jesuit activity in missions and in discovery may seem to us, the life then set in motion still lives in us: lives in our names, from the Sault Ste. Marie at the head of Lake Superior to the city on the mouth of the great central watercourse at the Gulf; lives in our stories of the brave lives of Christian teachers like Father Marquette; and lives, too, in the quaint traditions and customs that may occasionally astonish a modern American traveler if he should be detained in some of the quieter old-fashioned villages along the Illinois River. We do not realize how distinctively French were the beginnings of civilized American life in large portions of Wisconsin and Illinois and farther south.

We are too likely to think of everything as British. But France in the time of Louis XIV was a much richer and stronger country than England. Her influence and her interests extended over the civilized world. No reason was seen then why she should not prove the great colonizing nation of Europe. She had an East India Company; she owned Canada, Louisiana, and what was known of the more northern Mississippi Valley. Who could imagine that in less than a century all this would be swept away, and that England would be the dominating force in North America? Or which of those Jesuit teachers, living as they did

[1] *Joliet au Château St. Louis* will appear in the May number.

with savages, in miserable poverty and often in dire distress and danger of their lives — which of them would have imagined, as he traced in fancy the life at Versailles of the most splendid court in Europe, enriched with every luxury money and ambition could devise, that this undeveloped, uninhabited land should ere long far surpass France itself in wealth and luxurious invention? How much less could he have imagined that an American gentleman should one day own the right of hunting in those splendid parks of Versailles, then the care and the special pride of French kings.[2]

ROBERT, CAVALIER DE LA SALLE

(Saynète)

CHAPITRE III

PERSONNAGES

LOUIS XIV, roi de France.
COLBERT, secrétaire d'état aux finances.
LA SALLE, explorateur français.
TONTI, explorateur italien, compagnon de La Salle.
PAGES.
OMOHAHOHA, chef des Illinois.
LE PÈRE HENNEPIN, missionaire et explorateur français.
D'AUTRAY, compagnon dévoué de Tonti et de La Salle.
UN GUIDE MOHICAN.
COUREURS DE BOIS.
INDIENS.

SCÈNE I

(La scène se passe à Versailles en 1675.)

Personnages: Louis XIV; Colbert; La Salle; un page.

COLBERT: Je supplie *Votre Majesté* de vouloir bien lire et considérer avec attention les deux pétitions que voici. Je viens de les recevoir de Robert, Cavalier de La Salle, explorateur courageux du nouveau monde et voyageur intrépide. Il est en France depuis peu de jours.

LOUIS XIV: Robert, Cavalier de La Salle! Ah, Monsieur Colbert, Monsieur de Frontenac m'a souvent parlé de lui dans les

[2] Mr. James Gordon Bennett owned this right a few years ago, if he does not still own it.

termes les plus élogieux. Il se plaisait à le comparer à Ponce de Léon et à Ferdinand de Soto.

COLBERT *(s'incline profondément):* *Votre Majesté* n'oublie jamais ceux qui travaillent à la gloire de la France.

LOUIS XIV *(prenant les pétitions):* Voulez-vous d'abord me lire la lettre du Comte de Frontenac?

COLBERT *(lit):* Comte de Frontenac à Colbert, le quatorzième jour du mois de Novembre, en l'an de grâce, mil six cent soixante-quatorze. "Je vous recommande Robert, Cavalier de La Salle, pour toutes les entreprises que Sa Majesté daignera lui confier, car il a une connaissance parfaite de l'état de la "Nouvelle-France," ainsi que vous pourrez en juger si vous daignez lui accorder quelques minutes d'audience."

LOUIS XIV *(avec un léger sourire):* Cette recommandation mérite qu'on la considére avec quelque intérêt, car elle vient du Comte de Frontenac qui ne donne pas des louanges à la légère. *(Il parcourt rapidement les pétitions.)* Bah! Une lettre d'ennoblissement! *(Fronçant le sourcil.)* Quoi, encore! Monsieur de La Salle demande le gouvernement du Fort Frontenac et du lac Ontario. *(Il réfléchit un moment.)* Enfin, je veux le voir, Colbert.

COLBERT: Sire, il attend dans l'antichambre le bon plaisir de *Votre Majesté.*

LOUIS XIV: Qu'il entre!

UN PAGE: M. Robert, Cavalier de La Salle!

(La Salle entre et s'agenouille devant le roi.)

LOUIS XIV: Levez-vous, M. Robert, Cavalier de La Salle. Nous sommes informé des bonnes actions que vous avez accomplies dans la "Nouvelle-France." Le Comte de Frontenac dit que vous avez une connaissance parfaite de l'état de ce pays. Dites-Nous un peu ce que vous comptez faire dans le nouveau monde.

LA SALLE: Sire, je viens de la *"Nouvelle-France"* demander à *Votre Majesté* l'autorisation d'explorer la partie occidentale de ce pays. Il y a de vastes contrées à découvrir, d'impénétrables forêts, des lacs, des rivières, des fleuves. *(Avec feu.)* Que *Votre Majesté* daigne m'accorder l'autorisation de construire partout des forts pour lui assurer cette conquête . . . . ! *(Il s'agenouille.)*

LOUIS XIV: Nous recevons agréablement la supplication que vous *Nous* faites pour découvrir la partie occidentale de la "Nouvelle-France," et Nous donnons d'autant plus volontiers les mains à cette proposition qu'il n'y a rien que Nous ayons plus à cœur que la découverte de ce pays, dans lequel, selon toute apparence, on pourra trouver un chemin pour pénétrer jusqu'au Mexique.

Nous avons tout lieu d'espérer que vous réussirez à Notre satisfaction et à l'avantage de nos sujets de la "Nouvelle-France." Mais Nous estimons aussi qu'il y va de Notre justice de distinguer ceux qui se sont signalés pour exciter les autres à mériter de pareilles faveurs. A ces causes et pour le bon et louable rapport qui Nous a été fait de vos bonnes actions dans le pays de la "Nouvelle-France," vous êtes ennobli. *(Il effleure La Salle de la pointe de son épée.)* Levez-vous, Robert, Cavalier, Sieur de La Salle!

SCÈNE II

(La scène se passe au camp des Illinois à Péoria en 1680.)

Personnages: La Salle; Tonti; le père Hennepin; Omohahoha, chef des Indiens; un guide mohican; coureurs de bois.

LE GUIDE *(en avant):* Ecoutez, nous sommes si près que nous pouvons entendre les sauvages.

TONTI: En effet, voilà le camp des Illinois.

LA SALLE *(vivement à sa petite troupe qui le suit en silence):* Français, en avant!

(Les Indiens entendent l'ordre. Ils s'avancent. L'audace des Français les effraie. Une grande confusion se fait au milieu d'eux. Les femmes et les enfants poussent des cris de terreur. Enfin trois vieillards, portant des pipes ornées de divers plumages, s'avancent à petits pas. Ils élèvent leurs calumets vers le soliel, puis s'arrêtent devant La Salle. Ils implorent la paix lui présentant en même temps les trois calumets. La Salle, qui a aussi un calumet le montre aux vieillards. Les Indiens éclatent en cris de joie. Le père Hennepin s'empare de plusieurs enfants. Il les tranquillise par de douces paroles et par des caresses.)

LE PÈRE HENNEPIN *(levant ses yeux vers le ciel, un enfant dans les bras):* Quels beaux sujets pour la religion!

(Le chef des Indiens s'avance et présente un calumet à La Salle. La Salle le prend, et quand il a fini de pétuner, le chef l'invite à s'asseoir.)

LE CHEF DES INDIENS: Prends place, toi et tes Français.

(Les femmes et les enfants s'éloignent à pas lents, se retournant de temps en temps pour regarder les Français.)

UN DES TROIS VIEILLARDS *(étendant les mains vers le soleil, et les tenant ainsi comme pour se garantir de ses rayons):* Que le soleil est beau, Français, quand tu nous viens visiter.

(Les trois vieillards s'asseyent ensuite sur l'herbe, et le reste de la foule suit leur exemple. Tout se fait sans bruit et avec toutes les marques du plus grand respect.)

LE CHEF DES INDIENS *(se tournant vers le maitre des cérémonies):* Le grand festin!

(On apporte un grand plat en bois plein de sagamité, farine de blé d'Inde qu'on a fait bouillir avec de l'eau et que l'on assaisonne de graisse. Trois ou quatre fois, les Indiens présentent aux Français une cuiller pleine de sagamité. Puis, on sert le second mets trois poissons. Le maitre des cérémonies en prend quelques morceaux, puis il souffle dessus, pour les refroidir après quoi, les Indiens en mettent des morceaux dans la bouche des Français. Le troisième mets est un grand chien.)

LA SALLE: Nous ne pouvons manger de ce mets. Je vous prie de le retirer de devant nous.

LE CHEF *(dont le visage exprime le plus grand étonnement)* Qu'on enlève le chien!

LA SALLE *(doucement):* Les Français ne mangent pas le chien. *(Il offre un rôle tabac au chef des Indiens.)* Je vous offre ce pétun, parce que c'est votre coutume de le prendre toutes les fois que vous traitez de quelque affaire importante afin de dissiper les mauvaises vapeurs qui pourraient troubler vos esprits.

LE CHEF DES INDIENS *(à voix basse):* Voilà qui est bien, mon frère.

LA SALLE *(offrant des colliers, des bracelets, du drap rouge, et des haches):* Je vous offre des colliers et des bracelets. Je vous présente cette étoffe rouge, parce que j'ai remarqué que, dans toutes les fêtes que vous célébrez, vous êtes accoutumés à

vous peindre le visage de cette couleur. Ce cadeau marque qu'à l'avenir vous vivrez toujours dans le plaisir et dans la joie. Ces haches que je vous donne serviront à dresser un tombeau magnifique à vos parents défunts. *(Il prend des lames d'épée et les enfonce dans le sol autour des présents dont il vient de faire cadeau aux Indiens.)* Je fais une palissade de fer afin qu'à l'avenir, les corps de vos parents décédés ne reçoivent aucune injure.

(Les Indiens éclatent en cris de joie.)

LE CHEF DES INDIENS *(se levant et s'adressant à La Salle):* Ta visite a rendu le ciel plus beau, le soleil plus éclatant, et la terre plus verdoyante. Je te remercie, toi et tes Français, de la peine que vous vous êtes donnée pour venir nous rendre visite.

LA SALLE: Nous sommes venus en hommes de paix vous parler du vrai Dieu qui vous a créés tous et qui désire que vous Lui obéissiez. Nous venons vous protéger, car le Grand Roi des Français vous fait savoir qu'il veut que la paix règne partout. Les Iroquois sont les sujets du Grand Roi, pourtant s'ils vous font la guerre, le Grand Roi vous donnera aide et protection. Moi et mes Français, nous allons à la recherche de la Grande Rivière. Nous avons besoin de blé d' Inde. Voulez-vous nous en vendre? Si vous ne nous vendez pas le blé nécessaire, nous passerons chez les Osages et nous ferons tout pour eux.

LE CHEF *(avec dignité et bienveillance):* Français, je suis votre ami, c'est pourquoi je vous prie de rester parmi nous et de ne pas chercher la Grande Rivière. On y trouve des serpents et des monstres, elle vous mènera à la mort.

LA SALLE *(fièrement):* Un Français est invincible dans tous les événements contraires, et il espère toujours avec le secours du ciel venir à bout de tous les obstacles.

TOUTE LA TROUPE: Vive le roi! Vive le roi!

LE PÈRE HENNEPIN *(levant ses mains jointes vers le ciel):* Deo Gratias!

(Les Indiens poussent des cris divers.)

SCÈNE III

Personnages: La Salle; D'Autray; Tonti; une poignée d'hommes; des Indiens.

(La scène se passe au golfe de Mexique en 1682.)

(La Salle, ému, indique le golfe.)

TONTI: Le golfe! le golfe!

D'AUTRAY *(solennellement):* Rendons grâces à Dieu! nous y sommes.

LA SALLE *(à ses hommes):* Qu'on apporte la colonne!

(Les Indiens s'approchent sérieux, silencieux. On apporte la colonne qui porte cette inscription: LOUIS LE GRAND, ROI DE FRANCE ET DE NAVARRE, RÈGNE LE NEUVIÈME AVRIL, 1682.)

LA SALLE *(plantant la colonne dans le sol):* Au nom du prince le plus grand et le plus victorieux, Louis le Grand, par la grâce de Dieu, roi de France et de Navarre, quatorzième de ce nom, ce neuvième jour d'Avril, 1682, je prends possession de ce pays de Louisianne.

(On y attache les armes du roi.)

TOUT LE MONDE: Vive le roi! Vive le roi!

(La Salle prend une croix et la dresse à côté de la colonne. Tout le monde chante le "Te Deum.")

CHAPITRE III

The grammar lessons are a résumé of the grammar work brought out in each scene of the play. A breath of life enters the dry bones of grammatical construction, when the lessons are the outcome of a real need. Experience has shown that in this relation the historical and grammatical quiz is a satisfaction to student and instructor alike.

LECONS DE GRAMMAIRE

PREMIÈRE LEÇON

Remarques sur l'orthographie de certains verbes irréguliers de la première conjugaison. Cette conjugaison compte quatre mille verbes irréguliers.

1. Verbes en *-cer.* Les verbes en *-cer,* comme *avancer, prononcer,* prennent une cédille sous le *c* devant les voyelles *a* et *o,*

pour conserver au *c* la prononciation douce de l'infinitif: Ex.: "La Salle s'avança respectueusement et s'agenouilla devant le roi."

2. Verbes en *-ger*. Les verbes terminés à l'infinitif par *-ger*, comme *charger*, prennent un *e* muet après le *g* devant les voyelles *a* et *o*, pour conserver au *g* la prononciation douce de l'infinitif: Ex.: "Colbert se charge*a* de la pétition de La Salle."

3. Verbes en *-eler* et en *-eter*. Les verbes terminés à l'infinitif par *-eler* et *-eter*, doublent la consonne *l* ou *t* devant une syllabe muette. Ex.: "Louis XIV s'appe*ll*e du nom de grand roi."

Exceptions: *acheter, geler, épousseter, celer, modeler, peler, racheter*, au lieu de doubler la consonne *l* ou *t*, prennent un *è* ouvert devant une syllabe muette. Ex.: "La Salle achète*r*a chèrement la gloire qui devait couronner sa mémoire."

4. Verbes en *-yer*. Les verbes en *-yer* changent l'*y* en *i* devant un *e* muet: Ex.: "Le guide que La Salle envoie en avant découvre le camp des Illinois."

Exception: Les verbes en *-ayer* conservent généralement l'*y* devant un *e* muet. Ex.: "La Salle pa*y*era (ou pa*i*era) cher ses courses aventureuses."

5. Verbes en *-ier*. Les verbes en *-ier*, comme *lier, prier*, s'écrivent avec deux *i* de suite aux deux premières personnes du pluriel de l'imparfait de l'indicatif et du présent du subjonctif. Ex.: "Que ne vous li*i*ez-vous aux intérêts de ces pauvres sauvages, dit le père Hennepin."

6. Verbes qui ont un *e* muet à la dernière syllabe. Ces verbes changent *e* muet en *e* ouvert (*è*) devant une syllabe muette: Ex.: "Pourquoi les Indiens enlèvent-ils le chien?"

7. Verbes qui ont un *e* fermé (*é*) à l'avant-dernière syllabe de l'infinitif. Ces verbes remplacent l'*é* fermé par l'*è* ouvert devant une syllabe muette, excepté au futur et au conditionnel: Ex.: "Quel territoire possèdent les Indiens aujourd'hui?"

DEUXIÈME LEÇON

Verbes passifs

Le verbe passif est celui qui exprime une action reçue ou soufferte par le sujet. Ex.: "La Salle *fut salué* par les Illinois."

On reconnait qu'un verbe est passif quand on peut ajouter après lui les mots *par quelqu'un, par quelque chose.* Ainsi *être saluè* est un verbe passif, car on peut dire *être saluè par quelqu'un.*

On tourne une proposition active en proposition passive en faisant du complément direct de la proposition active le sujet du verbe passif, et en employant le sujet de la dite préposition, comme complément indirect de la proposition passive. Ex.: Proposition active: "Les Indiens saluèrent La Salle." Proposition passive: "La Salle fut salué par les Indiens."[3]

TROISIÈME LEÇON

Verbes réfléchis

Le verbe réfléchi est celui dont le sujet et le pronom complément désignent la même personne. Ex.: "*Je m'efforcerai* de servir les intérêts de Votre Majesté." Ces verbes s'appellent aussi pronominaux.

Les verbes réfléchis sont divisés en deux classes: En verbes *essentiellement réfléchis,* nom donné à ceux qui ne peuvent *jamais* s'employer sous une autre forme: Par exemple, *s'efforcer* est de ce nombre. Il faut dire *absolument:* "Je *m'efforcerai* de servir les intérêts du roi," et en verbes *accidentellement réfléchis,* car si l'on peut dire: "Louis XIV *se promenait* avec la reine dans les jardins de Versailles," on peut également dire: "Louis XIV *promenait* la reine dans les jardins de Versailles." *Se promener* est donc *accidentellement* réfléchi.

Dans les temps composés des verbes sus-nommés, on emploie l'auxiliaire *être,* mais il joue le rôle de l'auxiliaire *avoir.* Ex.: "Monsieur de La Salle s'est récréé avec les Illinois," équivaut à: "Monsieur de La Salle a récréé lui-même avec les Illinois."[4]

[4] Then follows the conjugation of the reflexive verb *s'efforcer.*

QUATRIÈME LEÇON

Des verbes unipersonnels ou impersonnels

On appelle verbes unipersonnels les verbes qui ne se conjuguent qu'à la troisième personne du singulier de chaque temps. Ex.: "Il pleut," "Il neige," "Il grêle."

[3] Then follows the conjugation of the passive verb *être salué.*

Le pronom *il,* qui accompagne un verbe unipersonnel, est une espèce de pronom indéfini, qui ne tient la place ni d'un nom de personne, ni d'un nom de chose. On l'appelle "sujet apparent" du verbe. Ex.: Dans "Il convient," le pronom *il* est sujet apparent de *convient.*

On appelle "sujet réel" du verbe unipersonnel tout le reste de la proposition. Ex.: "Il convient de récompenser ceux qui se sont le plus distingués." "Ceux qui se sont le plus distingués" est le sujet réel du verbe *il convient.*

Conjugaison d'un verbe unipersonnel

Indicatif présent.....Il pleut
Imparfait.....Il pleuvait
Passé défini.....Il plut
Passé indéfini.....Il a plu
Plus-que-parfait.....Il avait plu
Passé antérieur.....Il eut plu
Futur .....Il pleuvra
Futur antérieur.....Il aura plu
Conditionnel.....Il pleuvrait
Passé du conditionnel.....Il aurait plu

SIXIÈME LEÇON

Questionnaire

1. Quel est le plus célèbre des ministres de Louis XIV?
2. Quelles pétitions Colbert se *chargea*-t-il de présenter au roi?
3. Pourquoi Louis XIV *jugea*-t-il la pétition digne d'être présentée au roi?
4. Quelles paroles *prononça*-t-il en ennoblissant La Salle?
5. Quel ordre effraya les Illinois?
6. Comment s'*appelle* le chef de ces sauvages?
7. De La Salle *cèle*-t-il aux Illinois le but de son voyage?
8. L'Illinois est-il un climat chaud ou froid?
9. Y gele-t-il quelquefois?
10. Les Indiens *rejettent*-ils les cadeaux de La Salle?
11. Les Français qu'*achètent*-ils aux Illinois?
12. Payent-ils le blé cher?

13. Nous soucions-nous de la colonisation autant que nous nous en soucions jadis?

14. A quelle religion le Père Hennepin liera-t-il les Indiens?

15. Pourquoi les Indiens enlevèrent-ils le chien de devant les Français?

16. Les Indiens *pelent*-ils les fruits avant de les manger?

17. Que devait découvrir le guide que La Salle *envoie* au devant de lui?

18. Pourquoi y *allait*-il de la justice de Louis XIV de distinguer ceux qui se sont le plus signalés?

19. Pourquoi tous les sujets de Louis XIV *s'efforçaient*-ils de lui plaire?

20. *Par qui* la Nouvelle France fut-elle d'abord *explorée?*

21. Pourquoi *nous plaisons-nous* à relire les aventures du Cavalier de La Salle?

22. A-t-on *modelé* des statues à La Salle et à ses compagnons?

23. En *modèlera*-t-on encore d'autres?

24. Vous *intéressez-vous* à ce récit?

25. Y a-t-il lieu d'être reconnaissant à La Salle pour ses découvertes?

COOKING IN THE THIRD GRADE

JENNY H. SNOW
University Elementary School

The third grade is studying vegetables, classifying them according to their composition into starchy, sweet-juiced, and strong-juiced vegetables. They are studying the ways of cooking each class and the making of vegetable soups.

The need was felt for some literature on the subject which would help the children to realize what the cultivation of some of these vegetables has meant to the world. No such literature could be found, so, from a number of reading-lessons specially prepared by members of one of the college classes in education, the following was compiled.

THE IRISH POTATO

The first home of the potato was in South America. There it was found wild. Sometimes we call it the white potato, that we may know it from the sweet potato. Often it is called the Irish potato. Do you know why? It is because the people of Ireland use so many, many potatoes. It was carried to Ireland from our own country over three hundred years ago. It is now the principal food among the peasants.

We have all seen the potato plant in bloom. Its pretty blossoms are sometimes bluish white and sometimes purple. I wonder if anyone has noticed its green berry or seed-ball. Potatoes are not usually raised from these seeds. A part of the potato itself is planted, and from each eye a new plant grows.

A schoolboy named Luther Burbank, while walking through a field of early rose potatoes, saw a seed-pod on one of the plants. He watched it carefully, thinking he would save the seeds and plant them. The field was near where he went to school, so he

watched the pod from day to day. One morning when he looked for it, he found it had disappeared. He got down on his knees and hunted the field over. He cried over his loss and went every day for a week to the field looking for this seed-pod. He finally found it about sixteen feet away hidden under another vine. It had evidently been knocked off by someone passing rapidly. He kept the seed-pod and the next year planted the seed. From the plants which grew he secured the one which produced the Burbank potato. Burbank potatoes are known all over the world.

The potato is a queer vegetable. It grows under the ground, but it is not a root. It is an underground stem.

We found that potatoes contain a great deal of starch. Much of the starch we use comes from potatoes. This useful, homely, everyday vegetable is found in almost every country. It has been used in France for a long time.

> "Three cheers for the French Republic,
> And the good potatoes eaten in it!"

Shall I tell you what happened to the first potatoes eaten in France? Well, a long, long time ago, when the Indians roamed all over this country, the Spaniards came to South America. There they noticed that the people ate, and almost lived upon, what they thought was the large root of a vegetable called *battata*. *Battata* means "papa."

The Spaniards sent some of these *battata* to their friends in Spain, and these friends sent them to Italy, another country near France. Finally some were sent to Belgium, to the mayor of Mons, which is almost in France.

The mayor liked the king of France very much and wanted to send him a rare gift. What did he do but send him a whole sack of potatoes!

Henry II, king of France, invited the great lords and noblemen of his court to a feast. The potato was to be the important dish. When the potatoes appeared the guests became very much excited. The king was the first to be served. He tasted the potatoes once, twice, and then passed the dish on in perfect silence. The lords and noblemen did as he had done. What was the cause of all this silence? The cook had not boiled them before serving

them with a delicious mayonnaise dressing. After the feast the king had every potato thrown out of the city of Paris.

About two weeks later some soldiers were camping near the fortifications of the city. While sitting around their camp-fire it seemed to them as if a most appetizing odor came from the glowing ashes of the fire. They began to examine the ashes in order that they might find the cause of the tempting smell. What a feast they had when at the end of a stick appeared one of the potatoes sent to the king of France. The soldiers ate them without the least fear, and they ate every one of them.

The news of this lucky find reached the ears of the king. I wonder if his poor cook lost his position. However that may be, the king sent for more potatoes and gave another feast. The potato was served again, but cooked this time. The most particular guest could not find one word to say against it.

There are many stories told of what the potato has done for our own country.

Over a hundred years ago our country was fighting against England. The American people wanted a government of their own, so that they could rule themselves. This war was the Revolutionary War.

General Francis Marion was one of the bravest fighters on the American side. He and his soldiers lived in the thick forests of South Carolina.

One day the English general sent a young soldier into the woods to find General Marion and his army. Just at dark, when he thought that he was lost, the young soldier saw the camp-fires of the Americans gleaming through the trees. Riding up close to the fire where the soldiers could see him, he waved his white handkerchief. Seeing the white handkerchief, the soldiers knew that he was a messenger and did not shoot him. They directed him to the tent of General Marion. Here the Englishman found him seated on a log in a tent made of pine boughs. Leaping down from his horse, he said: "General Marion, I have a message for you from my general." Marion said: "I will hear your message after we have eaten."

Presently, several of the officers came into the tent and sat

down on the logs. The Englishman looked all around for the table, but could find no sign of it. Soon a soldier came into the tent and said: "General Marion, supper is ready." He passed the plates. What do you think the plates were that the soldier brought into the camp? They were huge chips cut from a large tree near the camp-fire. The English soldier thought: "These are very funny plates. I wonder what the food will be!" Another soldier came in with some smoking-hot potatoes, just taken from the ashes of the camp-fire. The potatoes were placed upon the chips and handed to the officers. The poor Englishman had been riding all day and was very hungry. How he did enjoy those baked potatoes! Again and again the soldier brought into the tent the hot potatoes, and the Englishman thought that he had never eaten half so nice a meal.

When supper was over, the plates were placed in the fire instead of in a dish-pan. While they sat watching the plates burn in the glowing fire, General Marion said to the Englishman: "You now see what we Americans have to eat here in the woods. But just as long as we have potatoes, so long will we continue to fight for our country." The Englishman then knew that money could not buy General Marion and his brave soldiers. He was ashamed to tell General Marion that he had come out into the woods to get him to desert his country. He said: "General Marion, you are a brave man, and we can never conquer you as long as you and your soldiers have the potato as your friend. I shall return in the morning and tell my general that the potato is stronger than his gold."

In the morning the English soldier again ate baked potatoes, without salt or butter, on a wooden plate. He went back to his own country and never fought against America again.

General Marion, however, by the aid of the potato, continued to live in the dark, swampy forests of South Carolina. He fought so bravely that at last all the English were driven from the country.

THE MARCH MEETING OF THE PARENTS' ASSOCIATION

MRS. FRANK HUGH MONTGOMERY
Secretary Parents' Association

The Parents' Association of the University Elementary and High Schools met in the school building on March 16, the president in the chair.

Mr. Kroh, of the department of physical training, read a paper asking that physical culture be considered an art, and that it stand for the all-around development of each individual, and not the fostering of athletics and sports. As Mr. Kroh's papers will be printed in the *Elementary School Teacher,* this will not be quoted at greater length.

The subject of the evening, "The Stages of Physical Growth and Development in Their Relation to School Work," was presented by Mr. James Tufts, head of the department of philosophy in the University of Chicago. He said that the subject was one which showed how little we knew in regard to it, as well as the large number of questions that could be asked in connection with it. Did the period of rapid growth mean that the child should study more; that all his powers were quickened; or that the physical was being developed at the expense of the mental, and that therefore he should study less? The many queries before the student for investigation could only be introduced in one evening. He used four charts, prepared by Mr. Gore, in illustration. The first two showed the percentages in height and weight. From ten and a half to eleven and a half years the boy came nearest to an absolute stop in his increase in height, while between eight and a half and nine and a half the girl had already begun her fastest growth in height. This was a period of fatigue. Some said that this was due to its being the second period in dentition. Dr. Stanley Hall thought it might have to do with a period in the development of the race — a time of pigmy height. It was cer-

tainly a period when parents needed to be on the watch, and the school must fit its work to the child.

In contrast to this halt in growth, the adolescent stage was a period of rapid growth. The great question was what should be done with the girls at this age. Now nothing different was done. Did the rapid growth mean that they were strong and vigorous all around? Or was there such development of the body that the mental suffered? Another chart gave the ratios of resistance — the "life-intensity," as named by Dr. Hartwell, of Boston. It was shown that this was the age at which few girls die. Was it therefore the strongest period, and the one when they were best fitted to work? In the marking of a chart showing the ratio of disease, the line was almost the opposite, demonstrating that the girls pulled through with a good deal more of sickness. This chart was made from statistics gathered in Scandinavia and Germany, and might not apply equally to American children. It was certainly a serious question for educators. The present status of women in high schools and colleges was not all that could be desired. They represented a smaller proportion of women who married and bore children. Was this due to college training, or to physical conditions? It had not been decisively stated, but there ought to be careful and earnest study of this point. Was it due to the college or the high school? Certainly, there was an evil somewhere. In the case of the boy it was less pressing.

Mr. Tufts presented another chart, made from observations of children in Italy. It was a chart of morals or faults, and the question might be raised whether it was equally true of American children. The other charts were made from observations of forty-five thousand American children.

Mr. Gore said that it was interesting to note that the line in the moral chart coincided very nearly with that of the disease chart.

In the discussion that followed, these and other questions were asked: How do children in rural communities compare with city children in these stages of physical growth? Was the percentage changed in mixed nationalities? etc.

Mr. Tufts said that there must be investigation to get at the

laws of growth. The reasons for the development of the girl before the boy were hidden back in the development of the race and were open to speculation. In the more favored classes, the height averaged two inches higher than in the less favored during the earlier years. Ultimately they came out about the same. There were strong claims that the children of today have greater height than those of the preceding generation. He thought this period of rapid growth ought to preclude severe mental work. If the girl could not be taken into an entirely different environment, so that the strain under which she lived could be removed, then the studies which taxed her the most should be diminished, and there should be much out-of-door life. The studies best fitted to a child during this time should be worked out.

Mr. Atwood said that what had impressed him most in the charts was that the period of greatest depravity (if one might so speak) was at the point of greatest break in the present educational system. It all emphasized to him that a revolution must take place, that then the technical studies must not be forced, but rather science and what tended to outdoor life.

After a brief business session, the meeting adjourned.

EDITORIAL NOTES

Education as Creation

Education in its highest sense is the result of creative processes. Its value in any generation is measured directly by what that generation brings forth as a creation which is new, and but indirectly by what it produces that is merely an imitation of the old. Production is primary, conservation is secondary; conservation, indeed, can be assured only when production creates from old things new forms that are consecrated to higher uses.

The materials, it is true, are as ancient as the foundations of time; but every generation, every race, and every individual, so far as there is genuine education, weaves out of this primitive wealth combinations and results that are distinct creations. If he is to have an educative growth, every human being, from his earliest years, must be a creator. The school and home are truly educational only so far as they provide materials suited to the creative abilities of children, and furnish an immediate stimulus for their exercise.

A False Psychology

The theory that the educational process is essentially imitative, and not creative, especially in the formative years of childhood, is as old as psychology itself, and in practice today the proposition stands almost unchallenged. It is the prolonged and general acceptance of this theory that renders it so difficult to initiate and carry forward the reforms that are most needed in the educational field. Yet the psychologist who evolved the notion could not have been more serenely unconscious of the facts had he been theorizing in a childless world. Most of the psychologists since his day, disciple-like and equally blind, have merely passed along the fallacy of their masters. This idea is an interesting but mischievous relic of the old and primitive "faculty psychology" that prevailed a generation or two ago, and it is extremely unfortunate that it should still so completely dominate the field of elementary as well as that of

higher instruction. Nobody, at present, believes in education by sections: the sense at one time, the intellect at another, and the will at still another. It is no less absurd to assume that a distinctly imitative period must precede the creative.

Genesis of Imitation in Education

In the past, however, other reasons have existed for laying stress in education upon imitation rather than upon creation. Under pre-evolutionary conceptions, the creative individuals were always regarded with suspicion. In unnumbered instances they were killed off without due process of law. In our own enlightened day, under the influence of atavistic instincts, even we sometimes follow them to the limits of ridicule and slander. Controlled by such notions, the parent became the model for the child, and the ideals of the race were fixed by tradition. There was nothing to do but to imitate; nothing else was safe. The children, made to feel that they were actually bad *like some example of wickedness,* were taught that they should be good *like some type of virtue.* Therefore, the prominence which is given to imitation in education is due more to an old and all but discarded theory of human life than it is to scientific conclusions derived from modern psychology.

Enlightened thought now demands that the teacher and parent shall solve the difficult problem of substituting in the curriculum *as its basis* original work which is *creative* for imitative work which is *illustrative.* The task is most perplexing, because the entire machinery of the schools, from the curriculum to the details of the recitation, has been fitted up for work of the illustrative type.

Marks of Creative Work

Creation involves three things: *initiative, form,* and *organization.* That is, the motive must originate with him who creates; the choice of form must be his, and the whole must be organized in accordance with his ideas concerning the properties of materials and the fitness of things. For example, a shelf may furnish the motive for a decoration; the form chosen may be that of a vase, and this may be constructed (organized) from materials, new in such creations, and in keeping with a design entirely unique. Such work is truly

creative, and as a type it is but rarely found in school. The average curriculum is formed on the theory that the pupils are imitators, not creators, and consequently it is imposed. The daily lessons, in scope and character, and the modes of expression are prescribed, and all the activities of the school are reduced as nearly as possible to that monotonous routine known to the devotee of system as "regular work," which offers no play for the creative intelligence in either thought or deed.

The Entering Wedge

The constructive idea now being realized in various forms of hand-work represents the thin end of the wedge that is opening the way to reform. Anything which involves the hand immediately arouses the creative instincts. Much of this work, however, is still of the illustrative type, merely reproductive, or imitative, and in the beginning it was all of this character. In wood, for example, the "exercises" were all once manacled to a set of models that made no claim upon the creative powers through either their use or their beauty.

Constructive Idea Applied

At present, nearly all subjects in the curriculum make some application of the constructive idea. The lessons of history are vivified by reproducing typical creations of other days. Science becomes somewhat more real by the performance of more or less well-selected experiments set by book and teacher. Mathematics has been improved through its applications to prescribed construction. Something of both the technique and the spirit of art is acquired by reproducing the work of the masters. This all represents a distinct improvement upon the old régime of books and lectures, and such exercises will always form an organic and necessary part of an educational system.

The High-Water Mark

But the high-water mark in school-teaching will be reached only when such work becomes secondary because it is supplementary and subsidiary. Only when the dominant note of the school is clearly creative does it lay direct hold upon the vital and continuous interests of the children and become essentially educative.

This is true regardless of subject-matter or material on the one hand, and age or sex on the other, and to this fact some curious schoolroom phenomena are due. Patrons of the University Elementary School frequently marvel that the boys of all ages delight in cooking and textiles, while the girls are equally interested in woodwork and other forms of heavier manual training. The reason, however, is clear. It is not that there is anything inherent in either the dough, or the cloth, or the wood, or the iron, but rather because the work under all these heads is largely creative. In none of these does the essence of the study consist merely in blind adherence to a prescribed recipe or pattern; nor is it solely concerned with a perfunctory analysis of materials. It is because an aim is set up that is unique; it is somewhat new because it is personal — it is because the ages-old materials must be combined to fit new occasions that the interest is enlisted and the best original efforts, and consequently the highest educational results, are obtained.

Interest is in Creation

In early years the creations take visible form largely in wood, clay, cloth, and other materials. But under the influence of right motives, along with the growing outward forms, there start up unconsciously within the child the tender germs of æsthetic and moral ideals which, gradually taking on more and more robust growth, finally make the man a leader and a prophet in his generation.

The shifting of the curriculum to a creative basis will greatly modify its present form and function. Hitherto, we have sought knowledge of the future controlled by a belief in the past; hereafter, we shall seek knowledge of the past inspired by a belief in the future. History is not a thing apart; it should be presented as a vital aspect of every activity because it is necessary to its intelligent development. This will change the continuum of history, now zealously adhered to, from a serial and chronological chain of events to the gradual organization of all the facts that lie at the foundation of the different activities in present life.

The New Curriculum

History

Science

Through the direct study of nature, supported by history, the pupil will learn by degrees what the real material and ethical problems are for his generation, and from nature's substance and his own resources by his own creative methods he will attempt their solution.

Art Creations

Every creative activity will have its artistic aspect; for when the soul enters a creation, then and there art is born. Art-forms are now rarely creative. They do little more than tickle the sense with the pleasures of a fleeting hour — and they are worth all they cost for that! But when the lives of the children are properly enriched, music, painting, drawing, sculpture, and the rest will come forth as creations — the radiant allies of speech. In language growing fluent and supple, the pupils will learn to wreathe in descriptive, dramatic, and poetic forms the subtlest creations of which the human mind is capable.

Creation Transforms

Creative work transforms the individual. Through it, alone, he grows and maintains a personality that makes him different from others. Through it, alone, his generation rises above all that have preceded. Imitation is a training in conformity. It holds the creative instincts in abeyance until at maturity it is the exceptional man or woman who is not hopelessly bound by the shackles of convention. If he would ever create, he must override the prejudices ground into him by the schools, and, even then, the daring freedom of childhood but rarely comes again. The gospel of conformity teaches that the best has been done — that naught remains for us but imitation. This, too, in face of the practical fact that the discoveries of today have sent to the scrap-heap the brilliant inventions of yesterday! The effect is not less marked in the realm of morals. Generally speaking, the ethical code of the school has been copied from that which once served the purpose of the generation that developed it, but it is far below what, under present conditions, the pupils can create for themselves.

There is widespread opposition to reform in education on the grounds of expense. It requires more money now for the proper maintenance of a school, it is true, than it did a generation or two ago. But the added expense is only an incident of the times: just as our grocery bills have expanded mainly from causes not directly related to the things we eat. The real difference between the old and the new in education is not financial, but spiritual. It lies in the new views now held concerning the individual and his functions as a member of society. Education is a practical matter, and, therefore, the best is always the cheapest. A creative and productive member of society will increase the resources from which the support of the schools may be drawn; while the imitator of outlived results entails upon the social body a perpetual loss. It is not a question of finance, therefore, but of vision.

Reforms and Expense

The era of education as a creative process will be marked, not by its material resources, but by its teachers. Our schoolhouses are good enough: now, let there be trained teachers, then we shall have schools. Such teachers will be equipped, of course, with knowledge; but above all they will be trained in discernment — in the power to see and appreciate the fundamental things in human growth and in its output of character. They, too, must be creative, and, to create, they must be free. The present system that grinds and chafes at every move was developed under archaic ideals, and it has therefore become in large measure antiquated and useless. The organization of the schools must grow out of the professional necessities of the teachers, the greatest of which is that even the poorest shall be free to put the best of himself into his work. Under such conditions, every teacher and every child will become a positive creative moral force in the upbuilding of the social structure.

Trained Teachers Needed

W. S. J.

BOOK REVIEWS

Pioneer History Stories. By CHARLES A. MCMURRY. I, *Pioneers on Land and Sea;* pp. 261. II, *Pioneers of the Mississippi Valley;* pp. 218. III, *Pioneers of the Rocky Mountains and the West;* pp. 248. New York: The Macmillan Co. $0.50 a volume.

In publishing these stories of frontier life and adventure, Professor McMurry indicates the kind of subject-matter which he thinks best adapted to the study of history in the fourth and fifth grades. The reasons for his choice are that the conditions of our pioneer life are so simple that they may be appreciated and understood by a child of nine or ten years, and that a comprehension of these conditions is necessary for an intelligent study of our national development.

These texts are a great improvement on the ordinary "first books of history" in that, while they tell of persons and events that have had a large place in our national life, they are not mere compilations of facts, with the mature conclusions which historians have drawn from these facts, but the stories are living, and the child really feels the problems and difficulties which his ancestors had to meet, and he too solves them over again for himself. This making of the problem his own insures the child's development.

In order that the teacher may take up first the stories of local interest, the author has arranged them in three groups corresponding to the three great divisions of the country. Since chronology is not important in this first study of history, why should a teacher in Kentucky start with the story of Columbus rather than that of Boone?

While it is true that children of nine or ten years will read these stories with interest and appreciation, they may be used almost as well as "supplementary reading" in such schools as follow a different course of study from that recommended by Professor McMurry. They will stimulate further independent reading, and awaken an interest in our pioneer history which will last longer than the recitation period.

The Louisiana Purchase, and the Exploration, Early History, and Building of the West. By RIPLEY HITCHCOCK. Boston: Ginn & Co. Pp. 349. $1.25.

This book fills a need in the textbook field. Although the exploration and development of Louisiana territory are treated in other books of history, they are treated either so briefly as to be of little help to the child, or so exhaustively as to discourage the average student of grammar-school or high-school age. Mr. Hitchcock is the first to present a text on this period of our history which is sufficiently detailed and yet compact and written in narrative form, and published at a price which does not prohibit its being in every school library.

In ninety-four pages are described the exploration and acquisition of Louisiana by the Spanish and the French, and its purchase by the United States.

One hundred pages are devoted to Lewis and Clark's expedition into the northern part of the territory and the Oregon country. The later explorations, from those of Pike to those of Bonneville and Frémont, are described too briefly in thirty-nine pages. The rest of the space is devoted to "The Building of the West." In the long appendix each one of the states carved from the Louisiana Territory is treated as to area and increase of population, agriculture and manufactures, with tables showing the growth of raw and manufactured products, and a résumé of the more important historical events with dates. The index increases the usefulness of the book as a work of reference.

An Elementary American History. By D. H. MONTGOMERY. Boston: Ginn & Co. Pp. 306.

This textbook, the latest of the "Montgomery Series," "has been prepared to meet the demand for a short continuous narrative history of our country, suited to the wants of elementary pupils." Compared with other textbooks of its kind, it has merit. The language is simple, and there are many illustrations and maps.

However, at the best, a United States history of this size can be only an outline, a statement of facts in chronological order, a series of generalizations and abstractions which have little educational value unless worked out by the pupils themselves. This is only another example of a book constructed on the college plan, with shorter paragraphs and more simple language. The supposition seems to be that the child cannot understand the language of the larger book, but that he can understand the complex political situations of the past, and that to memorize the more or less isolated facts is to be learning history.

Running the River. By GEORGE CARY EGGLESTON. New York: A. S. Barnes & Co. Pp. 295. $1.50.

The adventures of three brothers and a sister in managing a "store boat" on the Illinois River before the days of railroads in the region. Full of information, but written with little comprehension of the keenness of children in detecting the unnatural and pedantic in boys and girls, even in a story, and the consequent rejection of their companionship.

HARRY O. GILLETT.

THE UNIVERSITY OF CHICAGO
Elementary School.

Elementary Algebra. By J. H. TANNER, PH.D., Assistant Professor of Mathematics in Cornell University. American Book Co., 1904. Pp. ix + 364. $1.00.

Another number of the "Modern Mathematics" series, of which Professor Lucius Augustan Wait, of Cornell University, is general editor, has recently appeared in this text. The high reputation of the series for scientific excellence and logical rigor is a sufficient guarantee of the excellence of this volume in these particulars. The criticism we have to offer against the secondary texts in this series is that they formalize, to an extent quite unattainable by a high-school student, the subject-matter treated. This book is not exempt from this academic weakness. This is, of course, "a failing that leans to virtue's side," but still the extent to which this is carried makes it a decided failing.

In the preface of this work the author tells us that one of the problems of the writer is "to make the transition from arithmetic to algebra as easy and as natural as possible." With the second aim the reviewer is in full accord. The first does not seem to be a matter of so much consequence. Pupils like to do hard things, if they seem worth while. The aim of secondary work in mathematics should be not so much to carry the pupil along easily as to elicit his interested attention by filling him with the belief — with the conviction — that the mathematical ideas, method, and machinery upon which he is called to spend so much time and energy are worth all they cost from the view-point of modern demands upon American citizens. This can be done only by giving him work that rings of the genuine. If algebra, geometry, and the rest of the mathematics of the high school cannot vindicate themselves on the basis of meeting the actual demands of our industrial and economic life, they will remain, as they are now to a lamentable extent, mere curios, attracting only the dilettante frame of mind, and playing no vital part in the work of educating youth. What we need most of all in an algebra is real problems comprising modern ideas and modern conditions, and opening up lines of thought through which the pupil may grow into a fuller and more masterful knowledge of those phases of life with which algebra is peculiarly well adapted to deal. In a word, we need less form and more substance.

Many of the problems of this book are excellent in this regard, however. The pupil will catch a thrill of interest in many places, though the strain to make the subject fundamentally scientific and logical is too evident, and it will operate to nullify the good effects of these problems. Deductive reasoning must be approached gradually as the need for it is felt by the student. It must be *taught*, not merely *exhibited* and *exploited*. Definition and rule and fundamental, logical presuppositions dominate the development of the subject here, but modern pedagogic thought has entered to the extent of vitalizing many of the lists of problems. In spite of these formal defects, however, this is one of the most suitable textbooks for high-school algebra now on the market.

G. W. MYERS.

THE UNIVERSITY OF CHICAGO
School of Education.

BOOKS RECEIVED

The Southworth-Stone Arithmetic. Books I, II, and III. By GORDON A. SOUTHWORTH, Superintendent of Schools, Somerville, Mass., and JOHN C. STONE, Associate Professor of Mathematics, State Normal College, Ypsilanti, Mich. Boston: Sanborn & Co., 1904. Cloth, 12mo. Book I, pp. 198; Book II, pp. 260; Book III, pp. 308.

Four American Indians. By EDSON L. WHITNEY AND FRANCES M. PERRY. With Illustrations. New York: American Book Co. Cloth, 12mo. Pp. 240. $0.50.

Kayser and Monteser's Brief German Course. By F. C. KAYSER AND FREDERICK MONTESER. New York: American Book Co. Half Leather, 12mo. Pp. 363. $1.20.

Maxwell's Elementary Grammar. By WILLIAM H. MAXWELL, City Superintendent of Schools, City of New York. New York: American Book Co., 1904. Cloth, 12mo. Pp. 208.

Moral Education. By EDWARD HOWARD GRIGGS. New York: B. W. Huebsch, 1904. Cloth, 12mo. $2, net.

Common-Sense Didactics. By HENRY SABIN. Chicago: Rand, McNally & Co., 1903. Cloth, 12mo. Pp. 343.

Mace's School History of the United States. By WILLIAM H. MACE. With Illustrations by Homer W. Colby, H. W. Dietzler, and Denman Fink; Portraits by Jacques Reich. Chicago: Rand, McNally & Co., 1904. Cloth, 12mo. Pp. 465 + xcv. $1.

Notes of Lessons on the Herbartian Method. By M. FENNELL and Members of a Teaching Staff. New York: Longmans, Green & Co., 1902. Cloth, 12mo. Pp. 270.

Argumentation and Debate. By CRAVEN LAYCOCK AND ROBERT LEIGHTON SCALES. New York: The Macmillan Co., 1904. Cloth, 12mo. Pp. 361.

A History of Education in the United States. By GRANT DEXTER. New York: The Macmillan Co., 1904. Cloth, 12mo. Pp. 656. $2, net.

Government and the Citizen. By ROSCOE LEWIS ASHLEY. With Illustrations. New York: The Macmillan Co., 1904. Cloth, 12mo. Pp. 252. $0.70.

Excursions and Lessons in Home Geography. By CHARLES A. MCMURRY. New York: The Macmillan Co., 1904. Cloth, 12mo. Pp. 152.

Children's Gardens. By LOUISE KLEIN MILLER. New York: Appleton & Co., 1904. Cloth, 12mo. Pp. 235.

The Vicar of Wakefield. By OLIVER GOLDSMITH. Edited, with Introduction and Notes, by LOUISE MAITLAND. New York: Appleton & Co., 1904. Cloth, 12mo. Pp. 265.

Shakspere's Tragedy of Julius Cæsar. Edited for School Use by WILLIAM HAMMOND MCDOUGAL. New York: Appleton & Co., 1904. Cloth, 12mo. Pp. 158.